

# *The* AMERICAN RIFLEMAN

THE RIFLE 1885

ARMS & THE MAN 1906

## SHOOTING

~ 1888 to ~

## & FISHING

~ 1906 ~

VOLUME LXXV

NUMBER 2



CAPT. G. L. WOTKYNs

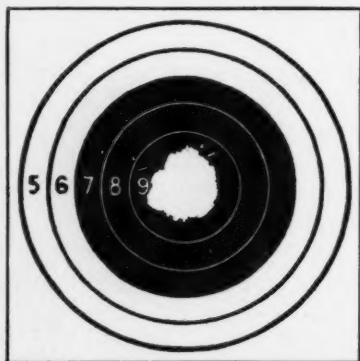
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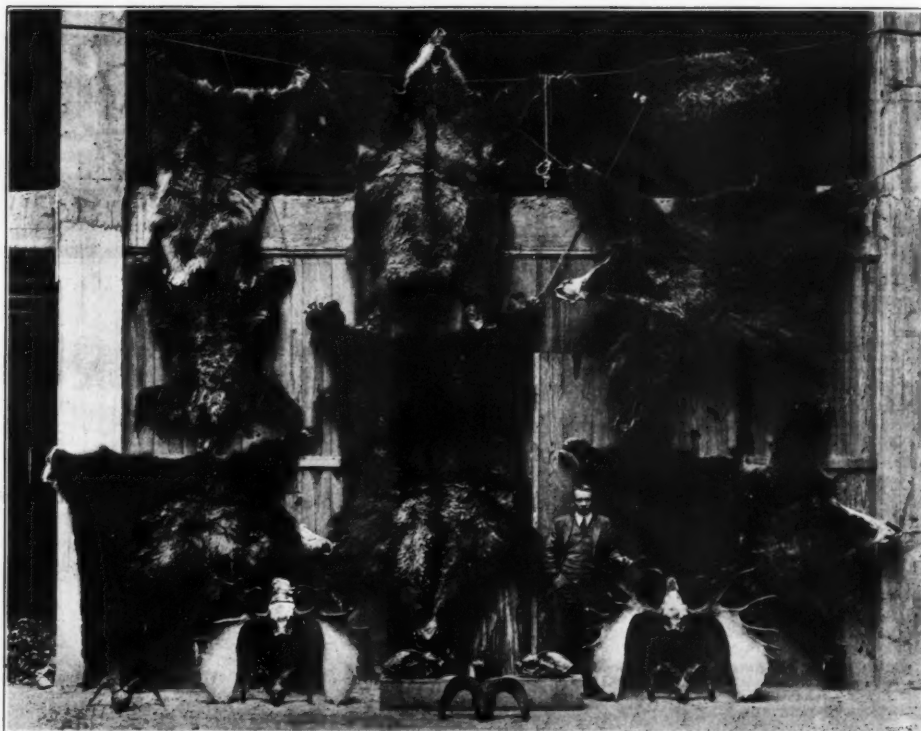








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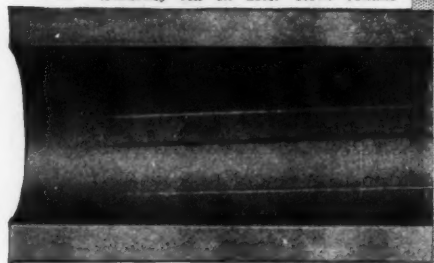
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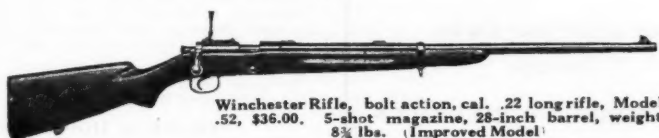
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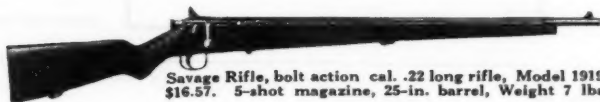
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I wish to be credited with \$.....as my contribution to the International Team Fund.

Name .....

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P. S.—If you don't want to clip the magazine, write your name and address on a piece of paper, pin your contribution to it and mail to the National Rifle Association.



# The AMERICAN RIFLEMAN

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WASHINGTON, D. C., FEBURARY, 1927

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## "Heroes a la Cart"

By John Hubbard West

*"Oh, my name it is Jack Hall, it is Jack Hall,  
And I hates you one and all, one and all;  
I can lick the blasted fleas that call themselves M. P.'s.  
I can lick 'em one an' all, damn their eyes.*

*"To the guard house I may go, I may go,  
But they'll take me doggone slow, and I'll—"*

A hand, clapped over the speaker's mouth, caused the serenade to end in a profane gurgle.

"FOR the love of Bugs," the owner of the hand rasped in a hoarse whisper, "cut the music. You ain't in Chicago now. Your'e in Paris. And you're here A.W.O.L. The damned town is lousy with M. P.'s. If they grab you, you're S. O. L. for the rest of this man's war. It ain't like back home, when you could lie down in the middle of Boul Mich, hold up traffic for an hour and then get Carson to square it with the cops. Let's hunt a fox hole somewhere and get pie-eyed in peace."

Bugs MacMasters, whose wild escapades as a newspaper reporter before the World War had won him his nickname, protested vigorously against any suppression of his serenading complexes.

"We came over here to make the world safe for democracy, didn't we?" he wanted to know. "Ain't we got some rights?"

His companion, serious-minded Gerald Riley, who had been a drama critic on Bugs' paper at the time they both decided to enlist, agreed, but insisted that two members of Rooney's Bucks, A.W.O.L. in Paris while their outfit was in rest area only a few miles back of the lines had a slim chance of proving it.

"Aw, dry up," Bugs told him. "You're always hangin' crepe. If I didn't know you, you little shrimp, I'd think you were yellow. Trouble with you is you like to loaf around until some excitement comes an' smacks you in the kisser. Then you handle it. Me, I like to go stir it up—an' this is my night to stir."

"Come on, Bugs, use your head," Riley coaxed. "Let's pick up a couple of dolls, inhale a little vin rouge, and meander on our way before the M. P.'s get us or the old man gets mad and hands us a rap."

For a moment it seemed as if the six-foot, tow-headed, wild-eyed Bugs had yielded to the sane arguments of his diminutive buddie. For a moment they strolled along in silence. Then from the powerful lungs of Bugs came a war-whoop that might well have frightened the timid wayfarers of midnight Paris.

"I'm a lo-o-o-o-n-e Woo-o-o-l-l-f! An' this is my night to h-o-o-o-o-w-l! Wh-o-o-o-p-e-e-e!"

Again and again the weird howl echoed through the night. Riley's pleas, his attempts to silence his friend by force were futile. But the little chap was game. He stuck—even when the brisk tramp of feet told of the proximity of an M. P. patrol.

Bugs, unheeding, again bayed mournfully toward the skies.

From the darkness came a curt voice, menacing with authority.

"Who the devil are you? There'll be no more howling on this beat tonight. Shut up and be on your way."

The voice belonged to First Sergeant Bill Purdy, veteran of Cuba, China, and the Islands; now bossing a crew of M. P.'s, but loath to lock up a couple of soldiers who were merely oiled up and enjoying themselves.

But Bugs was rapidly realizing the effects of the insidious wines of France, which get in their best work hours after the tippler has forsaken his bottle. Through a daze he saw Purdy, and for the moment imagined he was back in his home city, facing a Chicago cop. Bugs never stood on ceremony with the police there. His brother was a power in politics, and his managing editor had a way of getting first-class reporters out of trouble. He once more howled his war-whoop and started a haymaker for the jaw of Sergeant Purdy. A neat and business-like short jab to the jaw stretched Bugs on the cobbles. Riley dashed in to aid his friend, only to be stopped by one of the two M. P.'s who were with the sergeant. These he had not noticed in the gloom.

"Snake these birds in where we can give 'em the once-over," Purdy ordered.

And the lone howler, sobered as he came to his senses after the sergeant's knockout blow, was led away with Riley to face the hard-boiled M. P. chief, who was notorious for his lack of sympathy and understanding for A.W.O.L.'s. But it didn't turn out as badly as they feared. The old sergeant looked them over, searched his memory a moment, and then, with the light of recognition in his eyes, "went to the front" for them.

"I know these two birds," he told the captain. "They're from my home town—Chicago. With Rooney's Bucks. Good soldiers, both—in the field. Bums in rest area and barracks. If the captain doesn't mind, I'd like to send them back to their outfit—under guard."

The captain didn't mind. He had plenty of bums on his hands and knew that good field soldiers—especially artillerymen—were none too plentiful at the front.

"Send 'em back," he ordered curtly. "Let Rooney handle his own damned hoodlums."

It never had occurred to either captain or sergeant to ask Bugs and Riley for their passes. And when the A.W.O.L. condition of their adventure was discovered finally they were safely in the custody of Old Man Rooney, who never had been known to be ultra-severe with good field soldiers.

Bill Casey, the battery commander, promptly haled the recreant bucks before the "Old Man," who, being an old artilleryman and the son of an artilleryman, knew all the prayer words in the Bible, and a lot that never got into it. When he finished telling the two bucks what he thought of them, they'd heard a lecture that would have made Billy Sunday's best effort sound like the valedictory of a sweet girl graduate. Rooney once had commanded a jackass battery. He knew all the cuss words, and didn't overlook any of them.

"Now, then," he finished, "I haven't any time to waste trying you two bums. You can take your choice. Back to the M. P.'s, or turn over every red cent you've got—and stand a search to make certain

you don't hold out a franc. Also check your watches, rings, and other valuables. And I'll bust the first man that lends either of you a thin, red, copper cent."

Sadly the pair turned over two large rolls of francs, the proceeds of many a successful tilt with the galloping dominoes, two valuable watches, diamond rings, fountain pens—everything that might be used as the basis of barter or borrowing, except the clothes they stood in.

Colonel Rooney turned to his adjutant.

"See that the word goes down the line that the first man who lends either of these two bums a dime will get a dose of disciplinary medicine that will make him sick for the rest of this war. Then have the stable sergeant put these two loafers on the spreader and see to it that they work."

Bugs and Riley groaned inwardly. The "spreader" was a big, lumbering farm wagon into which the refuse of the artillery stables was piled and carried around to the French farmers behind the rest area. Those who shivered and got soaked, who waded in mud and plowed through muck in the major American tour of "Sunny France" in 1917 and 1918, know how the French farmer treasured the stable refuse—recall, perhaps, the sweetly scented breezes that were wafted from the manure piles in the yard to the billets in which they tried to find repose. They know, too, how grateful these French peasants were to the commanders of horse artillery for the refuse of their corrals. Generally the job of hauling this material around was allotted to the "gold bricks" and ineffectives. But Rooney knew well that Bugs and Riley cared little for a fine, or a guard-house sentence, which would terminate when the regiment returned to the front.

He felt that so menial a job would bite into their soldierly pride and that a reformation might result. For these men, in action, were premier soldiers, winning non-commissioned chevrons in every action, only to lose them by reckless deviltry the moment they struck a rest area. They had behaved rather well while "Wild Man" Hunter was their first sergeant. Hunter, a newspaper man himself, and wild as the two together, understood them and enforced discipline with boot and fist. But when Hunter became a captain, Bugs and his buddy had run wild. Their ziz-zag path ended on the "spreader."

It was a sad and sober pair that urged a worn-out team, hauling a heaping load of manure, into the farm-land adjacent to the rest-camp. Shivering in their slickers in a drizzling rain, they hauled load after load to the small farmers, unloaded it where requested and returned for another trip. A weary pair they were when finally released from duty for the day—to look forward to

many more days of the same. Some disciplinary, that man Rooney!

\* \* \* \* \*

*"Mademoiselle from Armentiers,  
Parlee voo,  
"Mademoiselle from Armentiers,  
Parlee voo,  
"Mademoiselle from Armentiers,  
\* \* \* \* \**

*Hinky-dinky parlee voo."*

RESTING THEIR AUTOMATICS  
ON THEIR KNEES THEY  
OPENED FIRE.



IT WAS after taps. Yet "C" battery in chorus was lifting up its voice in a song it never had learned from the Y. M. C. A. cheer leaders. The racket aroused First Sergeant Flood, who started in to see what it was all about. It brought the officer of the guard on the run. It brought Captain Casey, attired in boots, overcoat and B. V. D.'s.

Voices of sergeant, officer of the day, and battery commander mingled and clashed in profane demands to know what it was all about.

"What the hell's going on here? Where do you birds think you are? Cut out the racket," and a lot more.

And from tents came defiant laughter and ironic comment.

"Aw, dry up! We got a stake in this war, too. This is the democracy we're makin' the world safe for. Come on in, Cap'n, an' have a drink."

Then a weird howl split the darkness:

"Po-o-o-w-d-e-r R-i-i-i-v-e-r! She's a mile wide and an inch deep, an' she runs uphill. Let 'er buck! Whoopee!"

There was no doubting that the whole battery was hilariously drunk.

The officer of the guard looked at Casey. Casey stared back and turned pale. A commander can handle a drunken squad—or maybe two. But what can he do when the entire outfit is on the rampage? To report to Rooney would mean that the commander of

that battery would be busted, and busted pronto. The officer of the guard was Casey's friend. There was nothing to do but pacify and quiet the outfit as best they could. It was tedious work. But with the aid of the few sober noncoms they managed it.

When all was quiet, Casey and his lieutenants and the officer of the guard held a council of war. "Where," they wondered, "did those birds get the liquor?"

Sergeant Flood was interviewed.

"That's the mystery, sir. There isn't enough money in the outfit to buy a bean. Bugs and Riley took it all in a crap game a week or so ago. Then they went A.W.O.L. When they came back, the colonel cleaned them out. Wherever they got it, they didn't pay it. That's certain."

"Well," said Captain Casey, finally, "It's a cinch they drank it all and that the supply isn't regular." With that he went back to bed.

But the supply was "regular." The next night, and the next, and the next, saw repetitions of the hilarity—somewhat repressed—that had disturbed the camp on the night of

"C" battery's first celebration. The matter simply had to be passed on to Old Man Rooney. He listened quietly to Casey's tale. Then:

"Has any other battery been—er—celebrating?"

"No, sir."

"All right. Forget it. I'll handle it myself."

Casey departed, feeling that Rooney already was dictating the order that would relieve him. But Rooney did nothing of the sort. He turned to his orderly.

"Find Lieutenant Kendall and bring him here."

"Kendall," he explained, "'C' battery has been having a series of high old drunks. No money in the outfit. Yet they're swilling more vin rouge than all the rest of the A. E. F. Now I have a hunch. Bugs MacMasters and that slick buddy of his are on the spreader. Somehow they're running in that booze. I know they haven't a dime, and we all know the Frogs give nothing for nothing. Put a couple of men on the job and find out how it's being done. Then bring those two bums here."

It was mid-afternoon when Kendall returned. With him came a corporal, a squad, Bugs and Riley. Kendall was grinning. He intimated that he sought private audience with the colonel before making his official report. Rooney took the hint.



"Those two birds are wasted in the line, colonel," Kendall explained. "They ought to be in the S. O. S. They'd trade the Frogs out of Napoleon's tomb. They were bringing in the vin rouge all right, and vin blanc, and brandy, or what have you. Here's the way they'd work it. They'd drive up to a Frog farmer, point to their load and say, 'How much vin?' Now you know how the Frogs value that manure. Well, if Mr. Frog didn't seem interested, they'd drive on. Then he'd get down to business. They must have averaged three or four gallons of some kind of booze for a load. Nobody, of course, paid any attention to an empty stable wagon coming back. They'd hide the stuff, and when things quieted down at night salvage it and pass it around."

Rooney grinned. Then his face sobered.

"They're splendid fighting soldiers. But I've got to teach them a lesson. Now what the devil can I do to them? Wish we had the British shot-drill in this man's army!"

His musing was interrupted by the arrival of a runner from division headquarters. The big drive had been ordered. Rooney's Bucks were being sent into line at once. There was no time to figure out special punishments for a couple of mischief makers. Rooney began issuing orders. The corporal and his prisoners stood waiting. Finally Kendall ventured to remind the colonel that the case was not disposed of.

"Oh, hell!" grunted the busy commander. "They'll be all right when we hit the Boche. Restore 'em to duty and tell 'em that if they come out alive I'll use their hides for door-mats."

**FIVE** hours later the big push was on. With a series of great pinching movements the Allies were pushing the enemy backward. But the enemy was fighting every inch of the way—and sometimes the pressure on the pinching machinery almost cracked it. Pieces of it were constantly being bent—only to be repaired and set back to the work of pressing. The point of the innermost pinchers was bending at Beaurevoir. Artillery camouflaged somewhere behind a farm house was holding up the American advance with muzzle bursts. Rooney, who got his first lessons under the greatest living artillerist—the man who as a young battery commander shoved his pieces in the noses of the Island insurgents, decided that the only way to get rid of that battery was muzzle burst it out. Calling for volunteers, he ordered up a gun. Bugs and Riley were the first to step forward, beating the rest of their section only by seconds. Bugs was a sergeant now. There had been much fighting since that day on the manure wagon. The gun was moved in at night, the horses hidden in nearby woods. At dawn it opened fire. But the enemy had anticipated just such a move. Suddenly a burst of machine-gun fire from a gully, hard by, dropped Lieutenant Buck and two men. The others took cover. Just one shell had been fired. Bugs found himself in command. He cursed freely and

frequently for some ten seconds. Then he barked an order.

"You, Jones, and you, Carrol, sneak around behind until you can get a peep down that gully. Get within thirty or forty yards of that gun. Then bump off those — — with your automatics."

The men addressed stared at him blankly. "Well, get going. We ain't got all day to play around here."

"But we never fired these damned things. Don't suppose we could hit 'em unless we got real close."

Bugs swore feelingly. He looked at Riley. Both had been "gun bugs" before the war. Each had accumulated many medals in the matches of the various clubs in their home city of Chicago.

Riley nodded: "It's up to us, Bugs. These boobs can't hit anything."

Ordering his crew to "hit the grit low, but stick right here," Bug and Riley crawled snakelike to a spot that flanked the machine gun. It was easier than they had expected, for the Germans were not looking for trouble from that direction. Noiselessly they crept within some fifty yards, seated themselves with their back against some saplings, just behind a little clump of underbrush. Resting their automatics, steadied by both hands, on their knees, they took quick sights and opened fire. It was the work of a moment. The gun crew was wiped out.

Bugs and Riley lost no time getting back to their gun.

"We've got the range, slam 'er in and let 'er go."

A moment later, Colonel Rooney, who had been nervously cursing at the delay and watching the key position through his glasses, saw a shell burst where it would do the most good. Still the concealed battery continued to harass him. But the advanced gun was searching for it now, and it was only a matter of minutes when it would be out of the way and the last obstacle to Rooney's consolidation of his line removed.

Bugs, working feverishly, cursed the luck that kept him from a direct hit. He knew he was making it hot for the concealed gunners, but he knew, too, that nothing except a direct hit would do the business.

Then, rattling, screaming, and hammering, a loose band heralding its approach, came a shell from the heavy batteries in the German rear. It landed less than 200 feet from Bugs' outfit. But he urged the crew to greater efforts and slammed four shells into his objective before the next "Big Bertha" came whining along. This fell a bit short.

"The next one'll have the right address," he muttered. "Give 'em a couple more, and pray for luck."

So the work went on. Two more shells were spat from the .75. Then came the blast that told them a caisson had been squarely hit and that the objective they had sought was attained.

"Bring up those nags, get this gun to hell out of here, pronto!" Bugs roared.

Frantically the men obeyed him. Loading their dead on the gun caisson, they began to move as the distant rattle told of the approach of another big shell with a loose band. Safety was a matter of seconds. They were less than 100 feet from their gun position when the big shell plunked into the ground at the exact spot where the .75 had rested. It was a dud.

Again the push was on. Rooney had no time to pass out any bouquets. He was busy. But he made a mental note of the work of Bugs and Riley, and when once again a hull in the fighting sent the outfit back to rest area, he sent for the pair.

"You men did great work back there," he informed them. "Now, you've always been a couple of bums when we're in rest area. Why don't you buck up and go after commissions. I'll be glad to send you to an officer's school. How about it?"

Bugs, as usual, found his voice first. He thanked the colonel in the most approved military fashion, but respectfully declined to become an officer. Then, with a grin, he concluded:

"But if the colonel wants to do us a favor, there's one thing we'd like."

"Anything within reason, Bugs."

"Well then, Colonel, just bust us out of this responsibility of being non-coms, and give us back our old jobs on the manure cart!"

\* \* \*

#### STAINLESS STEEL

**S**TAINLESS steel is a steel alloy containing from 10 to 12 per cent chromium. It has to be given a special heat treatment to make it soft enough to machine. The old anti-corro steel was very difficult to machine. American stainless steel, however, can be had in any hardness desired. Stainless steel is not affected by vegetable acids. It can be rusted if you try hard enough.

ALFRED K. FRIEDRICH.

\* \* \*

#### OUTERS' CLUB BOOSTS DEWAR MATCH

**T**HE Outers' Club of Mount Vernon, N. Y., has instituted a new match. The club was presented a prize known as the Dewar Trophy, to be fired for under Dewar conditions. The conditions of the match as published are as follows:

##### DEWAR TRY-OUT TROPHY

"A prize presented to the Outers' Club for competition over the Dewar Course. 20 shots at 50 yards, 20 shots at 100 yards, metallic sights. Targets will be marked in series as follows: Three 50-yard targets and three 100-yard targets. This will be one 50-yard for sighter which will be marked No. —SS and two for record which will be marked the number and the number plus a half; one 100-yard for sighter which will be marked SS, and two for record which will be marked by the number and the number plus one-half.

The number of sighting shots will be determined by the shooter. He can fire as many as he wants at the sighting target; then when he starts his string he must continue and fire ten shots on each target. After finishing the 20 shots at 50, the competitor will proceed to fire a sighting target at 100 yards, and then the two record targets, 10 shots on each target.

# The AMERICAN RIFLEMAN



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HON. BENEDICT CROWELL.....First Vice-President  
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JACK ROHAN, Editor.



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## \$100,000 For Civilian Clubs

THE sub-committee of the House Committee on Appropriations, in reporting the War Department appropriations bill, included \$100,000 to be used in giving Government aid to civilian rifle clubs. This, of course, does not guarantee that the money will be appropriated. That can be assured only by the civilian shooters keeping constantly in touch with their Senators and Congressmen and insisting that the appropriation be passed. But it is a distinct victory for the civilian rifleman, in that the present recommendation of an appropriation for their activities marks the first formal recognition by the House Appropriations Committee of the civilian shooter. Formerly this aid was supplied from surplus money "found" by the War Department and from surplus war stores, which, had they not been issued to the civilian clubs, would either have deteriorated or have been sold to some speculator at a nominal price. Under this system the civilian sat under the table and if there were any crumbs he got them. If none, he went without.

Now he has been recognized as a factor in National defense, entitled to sit at Uncle Sam's board and receive the sustenance necessary to keep him alive and active.

Of course, the battle is far from won. Victory will come only by aggressive and persistent support of the representatives of the civilian shooters in Washington—the executive officers of the National Rifle Association—who have worked night and day to obtain for the civilian shooter the consideration to which he is entitled. But the position one holds largely determines success or failure, and for the first time in the history of civilian shooting, it is in an advantageous position, as an activity recognized by Congress to be entitled to Government

support. It is now a question of how much support will be forthcoming. The \$100,000 recommended is only approximately half of the estimated requirements, but it is an immeasurable advance over the old system of giving the civilian the crumbs.

It was obtained because civilian clubs throughout the country supported the efforts of the N.R.A. executives by impressing upon their representatives the importance of having it. It can be brought up the required amount if these shooters will continue their activity and convince Congress that ample provision for civilian clubs is vital to National defense.

The first hurdle has been successfully crossed. It was by far the hardest and the highest, because under the old system of "finding" the support for the civilian shooter, few Congressmen were informed on civilian activities. It was necessary for the executives of the N.R.A. to enlighten them. It now only remains to convince them that the civilian shooters are prepared to insist that the necessary funds be forthcoming. This can be done only by every club and every individual shooter keeping constantly in touch with his Congressman and Senator, pressing the importance of the shooters' requirements, until the bill has safely traveled through both House and Senate.

## National Matches Virtually Assured

THE War Department appropriations bill, as reported to the House, carried all of the items necessary for the holding of National matches. This makes it reasonably certain that the matches will be held at Camp Perry this year. There is comparatively little danger of these appropriations now being stricken from the bill. Congress seems to have realized the importance of the matches, and if the shooters of the country continue to insist on Government recognition, there seems every probability that the matches will be provided for annually in the future. It's up to the shooters to back the shooting game—the one sport that is a National defense asset.

## Rastus Loved Economy

RASTUS kept chickens—real high-grade, blooded stock—from which, by the sale of setting eggs, he derived a comfortable livelihood. Came a time when several no-account families moved into the neighborhood, and chickens and other movable property began vanishing in the night. Friends advised Rastus to buy a good watchdog and get a shotgun.

"No, sah," he told them, "nobody's nevah done stole none o' mah chickens and nobody's likely a-gwine to. If I bought a dawg an' a gun an' no chicken thieves come, I'd just be sinfully wastin' mah dough. No, sah, I believes in economy. I's got some savin's an' I doesn't aim to squander any o' dem."

One night te chicken thieves came. They took Rastus' chickens, and with them his means of livelihood. Before he had replaced that flock he'd spent all his savings and had gone into debt.

• Somebody ought to paste the Rastus story in a prominent place in the principal show-spot of Washington, D. C.

The Navy is the watch-dog for Uncle Sam. The Army might be likened to the shotgun—for use in case the watch-dog gets kicked over the fence. Where such things are needed, common prudence dictates that they be the best. Yet, some prominent personages on Uncle Sam's national farm seem to think that a sickly, half-starved old mut will serve as a watchdog and that any rusty old relic makes a satisfactory substitute for a well-oiled shotgun.

These ideas are not new. They have prevailed in high places through most of the life of this republic. But in every instance, when trouble came, it was found that the "economy" broadcasters had been mistaking their hats for the microphone.

If the men responsible for the safety of the nation would read a little history, they'd discover that the Fates that manage the destinies of the world are strangely like the old burlesque show managers. They pull the same old stunt year in and year out, with a few changes of props, costume, and setting.

To hit the thing from another angle, a fire extinguisher is a handy thing to have around when, and if, the gasoline stove blows up or the baby plays with matches. What if it does cost a few dollars?



# Kissing the Bullet

By Russell Wiles

WHILE the practice of kissing the bullet, that is, wetting it with saliva before loading, is an old one among small-bore shooters, it has been growing in popularity within the last few years. Its devotees have been subjected to every sort of derision and have had little in the way of substantial evidence to support them. The result of machine-rest tests will, therefore, be gratefully received by many small-bore men who have heretofore feared that their custom might be founded in superstition.

Late in October I visited Capt. Grove Wotkyns at Springfield Armory, and we spent a thoroughly enjoyable Saturday afternoon playing with our pet rifles on the two machine rests in the .22 caliber testing room. These rifles are extremely accurate and are substantial duplicates. They have Springfield barrels, rechambered by Griffin & Howe, and fitted to B. S. A. Martini actions. The only observable difference is in the power of the hammer blow, Wotkyns' rifle striking somewhat harder than mine.

We fired in the neighborhood of seven to eight hundred rounds out of each rifle, testing many lots of ammunition and testing several lots extensively. Our tests were more severe than most rifles are called upon to meet, for we fired 20-shot groups at 50 yards instead of the usual 10-shot groups, and gauged with the new .89-inch, ten-ring instead of the 1-inch ring formerly used.

To give a clear idea of the effect of kissing the bullet, the normal behavior of these rifles with dry bullets should be stated. Each rifle showed a marked preference for one particular ammunition. Wotkyns' rifle performed best with one lot of U. S., while mine did its best with the lot of Peters which was on sale at Sea Girt in September. Neither did well with the ammunition which best fitted the other. With its pet ammunition, each was capable of shooting 20 shots possibles, mine doing a shade better than Wotkyns'.

Mine shot all possibles with the Peters' lot, whereas Wotkyns, with the U. S. lot, occasionally leaked a shot out of the .89 circle, although making at least eight possibles out of the ten 20-shot groups. Neither rifle threw any wild shots, the shots which were out being only just out. Indeed every shot would have scored in the old one-inch ten ring.

About the middle of the afternoon it was suggested that we try kissing the bullet. A very definite and visible shrinkage of the groups followed. On the whole, I should say that the groups shrank nearly .2 inch. Wotkyns had a better chance to test the proposition with his rifle, because he had plenty of ammunition and I presently ran out of my Peters' lot. Whereas he had formerly been

losing an occasional shot, and having many which would just score, he did not lose a shot with the wet bullets and all his shots were well in. The two targets illustrated, which were made with my rifle, are typical of the differences we both observed.

In the group shot with dry bullets there are 2 or 3 shots which only just touch the .89-inch ring which was drawn on the target after shooting, whereas in the group shot with wet bullets, the shots are all comfortably in. The difference was clear while the groups were being shot, for the groups with wet bullets were noticeably tighter, tending to make one ragged perforation rather than a number of distinguishable holes.

This was even more noticeable with some of Wotkyns' groups than with mine. After about an hour's shooting we were both satisfied that kissing the bullet is markedly helpful when the ammunition fits the rifle well enough to shoot possibles or near possibles very steadily. The magnitude of the improvement is just about enough to offset the change from one inch to .89 inch, which has been made in the new 50-yard ten ring.

While we are prepared to recommend kissing the bullet as a helpful expedient, we do not suggest that it will compare in efficacy with the selection of the proper ammunition for the particular rifle. With other lots of ammunition than those with which our rifles did their best, each one rather frequently threw wild shots which were perhaps an inch from the center of the main group and almost invariably between 1 and 5 o'clock. We have no idea as to why nearly all the wild shots were on one side or as to what makes them wild.

Shooting perhaps 8 or 10 groups with the U. S. lot, which Wotkyns' rifle favored, I got only one twenty-shot possible, which happened to be with wet bullets, but the preceding group had one wide 9 and the following group had two or three. If kissing the bullet

has any effect on these wild shots, it is too small to be noticed.

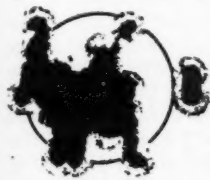
There is an even worse type of wildness in which there is no decent group at all. We tested some foreign ammunition which gave groups about 2.5 inches in diameter with the shots evenly scattered like a shotgun pattern. If kissing the bullet affects such a group, the change is too small to be noticeable.

Summing the matter up, we are both satisfied that when a rifleman has an accurate rifle and has discovered the ammunition which it handles best and with which it will steadily shoot one-inch groups at 50 yards, it is possible to make an improvement of from one to two tenths of an inch by kissing the bullet. Beyond this we do not go.

We have no idea as to the reason for the difference, though many reasons can be suggested. The action may be simply one of warming and softening the lubricant by contact with the lips, the water having nothing to do with it. This seems impossible because we were shooting in a very warm room and all our ammunition was of a uniformly high temperature.

The moisture may soften the fouling and thus produce slightly less deformation of a bullet in plowing through it. This possibility was suggested to me some two years ago by Ralph McGarrity. It is possible that the moisture makes a film in the barrel over the grease of the lubricant, producing a double lubricant film which is notoriously low in friction, as every automobilist has learned to his cost in driving on a greasy pavement covered with moisture.

Again, the moisture may make a better gas seal between the shell and the chamber thus producing more even gas pressure on the base of the bullet. Whatever be the theoretical explanation, the effect is plainly present under the particular conditions to which our conclusions are limited.



PETERS  
20 SHOTS DRY



PETERS  
20 SHOTS WET

## NEW NATIONAL BOARD NAMED

THE War Department has announced the personnel of the National Board for the promotion of Rifle Practice for 1927. The following compose the board:

The Assistant Secretary of War, *Hanford MacNider*.

The Assistant Secretary of the Navy, *T. Douglas Robinson*.

Chief of Militia Bureau, Major General *Creed C. Hammond*, United States Army.

Rear Admiral *Charles P. Plunkett*, United States Navy.

Rear Admiral *Montgomery M. Taylor*, United States Navy.

Colonel *David L. Stone*, Infantry, office Assistant Secretary of War.

Colonel *Alexander J. Macnab*, Infantry.

Colonel *Douglas C. McDougal*, United States Marine Corps.

Lieutenant Colonel *George C. Shaw*, Infan-

try, executive officer, National Board for the Promotion of Rifle Practice.

Major *Carl F. McKinney*, General Staff.

Major *Ralph S. Keyser*, United States Marine Corps.

Captain *Grosvenor L. Wotkyns*, Ordnance Department.

Brigadier General *Winfield S. Price*, New Jersey National Guard.

Brigadier General *J. Clifford R. Foster*, adjutant general, Florida.

Lieutenant Colonel *Fred M. Waterbury*, New York National Guard.

Lieutenant Colonel *Lewis M. Rumsey, Jr.*, Infantry Reserve.

Major General *Fred C. Ainsworth*, United States Army, retired.

Brigadier General *Bird W. Spencer*, New Jersey National Guard.

Major *Francis W. Parker, Jr.*, Ordnance Reserve.

# Hints on Handloading

By D. W. Mackie

**T**HERE are many reasons for hand-loading, or reloading. I do it for many reasons, pleasure, profit, better loads, information I get out of it and "same shooting for less money, or more shooting for same money."

One, to hand-load, or reload, must have the tools to do it with. I am not going to say what make of tools for one to get, but I do say get a full set of whatever make you want. I have about used them all—Winchester, B. & M., Ideal, Niedner, etc. They will do the business if you have the complete set, and one should certainly have all the implements that are necessary for the preparation of the shells before the loading is to take place. One should certainly have bullet calipers, scales for powder, and certainly should have some kind of gauge for the over-all-length of shells. Better get the B. & M. cartridge-length gauge. This is the best I have seen so far, but one can make such a gauge. No one can get the desired results unless he has the proper length shells. I want to get this into the minds of all who expect to get results that are right. This would seem to be mighty insignificant, but if you feel that I do not know what I am talking about, just get a shell that is correct for your chamber and load it and shoot it several ten-shot groups and see what you get, and then shoot ten-shot groups with shells picked up at random. If you will do this you will see what I am driving at. One must have his empties right if he expects to get accuracy, and no shell is any good that does not have accuracy.

We must have the proper powder for the barrel that we expect to use. A powder that is correct for one barrel will fail with the other, and both of them of the same make and caliber. The only way to tell about such things is to put the load on the bullseye. We may figure and figure on a load, and decide we have a perfect one, but when we get at the bullseye we find that we have made a failure. Here is where reloading comes in—one can get the proper powder, bullet, and primer for his barrel, no matter what make or caliber. I have found, after I had a perfect load, that simply a change in primers would put me off half an inch at thirty yards. One could overcome this possibly by change in sight, but you had better stick to one primer and not load them mixed, because there is a great difference in the power of different primers, no matter if they do fit the same pockets.

We get away from a good many things if we use the metal covered bullets exclusively. We do not need moulds, sizers, and lubricators, etc., unless we use the lead or alloy bullets, and I really believe it pays to use the metal-cased bullets, as they are cheap now, and they are not difficult to get. Of course, one can get good results with the lead bullets, also with the gas-check bullets. They are fine. One has to be precise if he gets good results with them, and the barrel must be perfect—much more so than when the metal-

cased bullets are used. We also get away from a good many troubles when we use the tight chambered rifle—I have tried all kinds, as I have been at it all these years, and a good deal of the time just to see what I could learn.

**G**ET out your .32-40 rifle and let's see what about it. This rifle is no plaything, when properly loaded. I mean the old Winchester Single Shot with No. 3 nickel steel barrel. You want to load him so he will do the business, I suppose. I do not know what tools you have, but trust that you have a full set. Get the shells the same size all over; better resize them, cut them off if too long, and expand the necks if too tight. Knock out the old primers and replace with new ones—this with the primer that it should have—No. 8 U. S., No. 2½-W Winchester, or No. 70 Gov. Any of these will do the business, but do not use them mixed. Stick to one or the other and regulate your powder charge accordingly. Now, you have your shells in fine shape—same as new ones. Get out your powder, No. 18 du Pont or Lightning. Set your Ideal or Bond measure so it will throw 29.0 grains No. 18, and put it in the shell. Take your loading tool—I prefer the Straightline—Niedner or B. & M.—and push the bullet home—this to be the 165-grain bullet with late jacket. You will find this bullet going some—about 2,100 f.s. If you prefer, you can use 24.2 grains Lightning, which ever one you have. Listen, you need not be afraid of the action that I mention above. I have used in mine 34.2 grains Lightning powder and 170-grain, .32 Winchester Special bullets. This gives a full man's-size load.

If you do not like the above load, you may use the .32 Winchester Special bullet in the Remington High-Speed Mushroom style, 110-grain weight. This gives you an up-to-date rifle. Use all the Lightning powder you can get in the shell. Or maybe you had better set your Ideal measure at 38—this will give you about 31.3 grains. Did you say 31.3 grains Lightning powder in the .32-40 rifle? Yes. This gives you some speed, but you need not fear the action if you have what I named above. I will not say about the 1894 Repeaters. You need not fear the old reliable single-shot Winchester if it is fitted up with the Mann-Niedner breech block and firing pin. You just can't blow it up. What about the accuracy?—stay on a dime at thirty yards! I mean, to lay dime over the hole in the paper made with five-shot groups. 'Nuff sed. This load gives better than 2,600 f.s. Did you say you had tried the Groundhog with such a load? Yes. What happened? He nearly melted. Try it in wood? Yes. What there? Fine. Try it in steel? Yes. What there? Fine—went right on through. What do you want with the .32 Special? Get out your old .32-40 you put back some time ago and make a .32 Special out of it—still have the latter's accuracy. My .32-40 is some

gun when I give it the proper dope, and no barrel will do better than its feed. I have about put mine on the Remington high-speed mushroom bullets, 110-grain weight, made for the .32 Special. Thanks to the Remington people for these bullets. Put a 5-A Winchester scope on this old rifle and you can go out feeling good.

If you do not like the .32-40 I have been talking about, let's get out your .250-3000 Savage, or better still, the .25 Niedner-Springfield, Niedner-Krag, or Niedner Winchester, in his .25-caliber shell, and you will find that you have something in your hands to be proud of—woodchuck cannot get out of his range if the rifle is equipped with good scope, Fecker, B. & M., or 5-A Winchester. The barrel I am talking about is the .25 Niedner-Winchester, using the .30-40 cartridge necked down to .25 caliber by Niedner. With this barrel you had better get one of his loading tools and get away from all that resizing of shells, etc. What am I going to give this barrel? I give mine 37.5 grain Hercules No. 300 Improved Military powder, and the .25-20 Winchester bullets with the Lubaloy jackets. This is some load—giving about 3,100 f.s., and accuracy that cannot be excelled—five-shot groups that you cannot put .32 cal. bullet in the hole at thirty yards. Thirty shots in one hole that I covered with dime, and one could not tell that the paper had been shot at after the dime was put over the hole.

If you do not like the above load, you may use the 60-grain Remington high-speed bullets with 42.5 grains of du Pont No. 16 I.M.P. powder. Does this give speed? Ask some one else. The accuracy is all that one could want—about like the other so far as I can tell. What about the woodchuck? Kills him if it touches him. I have killed them with this load and I could not tell that the bullet ever entered the animal—simply jerked out a hole the size of the first. The pig's life simply went out through the woods, as one fellow expressed it. We have to have such loads here, as the pigs are a good ways off when you see them, and one has to find them with binoculars at that.

Don't feel that if the No. 16 du Pont powder gives such results with this bullet in this barrel that it will do the same with other bullets for such is not the case. The fact of the matter is this is the only bullet that I can use successfully with this powder in this barrel. I have only found two powders that I could use successfully in this barrel with the .250-3,000 Savage bullets, or the .25-20 cal. bullets in the 86 or 87-grain weights and that is du Pont No. 21 and the Hercules No. 300. I use the No. 8 U.S. Primers with this load, and I have found them to be strong and constant.

If you do not like the above loads I will give you one that you will like. Take your Ideal or Bond measure and set it at 13 and fill your hopper with du Pont Shotgun Smoke-



less powder and use the 86-grain .25-20 cal. Winchester bullet, this made with one pound tin to 24 pounds lead and properly lubricated and sized. This gives one all that could be desired when it comes to a cheap load for short range work or small game such as squirrels, rabbits, etc. Its accuracy is the equal of the Model 52 Winchester Target rifle, all of which is going some. I get this accuracy with the No. 2½W Winchester Primers. I could not get it with other primers, might by changing the powder charge. It is necessary that the powder is kept at the head of the shell when firing and if this is not done the accuracy falls off some.

If you do not like either of the above you may use 12 grain of du Pont No. 80 powder and the 87-grain bullets and you will find that you have a rifle that will be hard to equal. This load gives good speed, also kills fairly well. You can use the soft point bullets if you want more killing efficiency. There is something wrong with the fellow who will tell you that the .250-3,000 Savage is a plaything. This gun with the loads I have been telling you about will go a long way, and will do all that is needed in this neck of the woods. I have loaded about all calibers and find that one can get much information out of this kind of work as the field is a large one, and one cannot tell what will happen. All the loads that I have been speaking of are not expensive and I feel that it is worth while for one to look after such if they expect to shoot to amount to anything. Of course, where one just keeps a rifle to take a hunt or two per year he need not mind the expense of a few shells, but where one shoots hundreds of shots per day he had better look up his old tools unless he has a better income than the most of us.

Some might want to know why I use the .25-20 bullets in the 250 Savage instead of the regular Savage bullets. The .25-20 cost about one cent each, the Savage about three cents each—this when using the late jackets, and no one should think of using the old jackets when running them up to high-speed. No doubt the pointed 87-grain Savage bullets are better, still it would be hard for one to tell—square points give all the accuracy I want—still I feel that the pointed bullets for this rifle would be better for long range work and where heavier game would be killed. Two cents per bullet is worth looking after, with most of us.

Hand-loader, reloader, or any one who expects to get much out of shooting should first subscribe to "THE AMERICAN RIFLEMAN" and along with this he should affiliate himself with the National Rifle Association of America, the greatest aids I know of for a lover of Rifle, Revolver, etc. He should also get "Hand Books" as put out by The Lyman Gun Sight Corporation, The Modern Bond Corporation and Belding & Mull, and he should learn these by heart. Being a member of the N.R.A. gives one advantages, especially when using the Krag or Springfield rifle.

I want to say a little more about the hand-loaders' equipment. If one does not have any loading tools and wants to get into the game

## Single Actions—Nothing Else But

By John Emmett Dernas

**N**O REVOLVER or pistol has been more maligned on one hand and praised on the other than the Single-Action Army Colt. The gravest charge against it is that it is more or less subject to an affliction known as "broken parts"; the most frequent offenders being trigger springs, hammer notches, and rubber stocks.

Nevertheless, it cannot be denied that the old S. A. is the gun selected by men of great experience when going into "the far country"



This Single-action Army Colt has suffered much—half of cylinder gone, top-strap blown off, and otherwise badly abused. It could stand even more wrecking and yet be a valuable gun to a man in the "back country." Note the one-piece walnut stock.

—the big woods, the desert, the mountains, or tropical jungles. Perhaps experience has taught these men that one broken part, or even several broken parts, will not put this

gun out of action. It can still be functioned when it has been stripped down to nothing but cylinder, barrel, hammer, and enough metal to hold these parts together. Even the barrel could be discarded and the gun would still be effective under certain conditions.

A certain writer for one of the popular outdoor magazines recently deplored the fact that he had experienced a broken firing pin in his Single Action, and, condemning that part of the gun as weak and faulty in design, suggested that the factory should get busy and change it entirely. It seems his firing pin had broken at the cannellure made to accommodate its retaining rivet, and I am still wondering how long that pin had been broken before he discovered the fact. I am inclined to believe that the break was not revealed until he removed the pin from the hammer. A gun I now have once suffered from that same ailment but never told about it, although many rounds must have been fired after the break occurred. The break would still be a secret had the pin not been removed during an attack of tinkering fever.

Located forward of the retaining rivet cannellure in the S. A.'s firing pin is a sharp shoulder (Continued on Page 12)

I would advise him to get, at the start, a full set of tools. If I was going to buy a new outfit for a rifle with Commercial chamber I would get the Belding and Mull tools, on the other hand if I was using a rifle with Tight-Chamber—that is, the Niedner Chamber—I would have him make my loading tool. If you have tools—no matter what make—stick to them. The old Winchester 1894 tool is fine, so are the Ideal tools. The same can be said of the Bond tools.

The loading tool must be correct for the chamber of your rifle. I would get in addition to the loading outfit a pair of scales, and when I say this I do not mean for you to get something that you can make out with, but a pair of scales, giving the word "scales" the full meaning of the word. In other words, get a Fairbanks or Bond scale that you know is correct to 1/10th grain. Along with this get a bullet caliper that will measure to the 1,000th part of an inch. Above all get a gauge that will give correct over-all-length of shells, for I can assure you that you will never get good results unless this is done, the most important operation of all. Get the proper length shell for the chamber you are using and then see that all shells are this length. If they are too short throw them away, more particularly if the shells are for crimp.

This looks as if it would put the Ideal double adjustable chambers out of business, but not so, set it correctly and let it stay there and then get shells that will give the same crimp. You can get this setting for any shell for any rifle that you may be using. A rifle chamber

that takes 2½ inch shells will not give good results with a shell that is 2¼ inch shells, neither will it give good results if the shell is 2 inches, the same is so if the shell is 2-3/16 inch and so on. Get them the same length. Caliper the bullets to see that they are the same size. You would be surprised to find a difference in bullets of the same caliber of two and on-half thousandths, but such is the case in the .25 calibers. They should be .257 and while a good many of them are this size you will find some of them that are .255 and on up to .2575. Find what your gun wants and stick to it. See that the proper amount of powder is used.

Set your machine to throw what you think is correct—or what the makers of the powder call for on the can for the rifle you are using and then check same by scales to see that it is throwing this amount, and if not move slides until it does throw what you want—then load and shoot and keep changing until you get the correct amount and then keep it there, but weigh occasionally to see that nothing has moved. No one can tell what your rifles want and you cannot until you try them out. Barrels are like men, have their individualities. What I have said is near the truth about the revolver and pistol. It does not take but a few shots for me to tell if powder and ball are correct for any rifle. I can tell after a few shots at the Bullseye. No powder yet made will work satisfactorily in all barrels, even of same caliber.

Good tools, proper powder, correct bullets, patience, perseverance and study will do the trick—try it and you will like it.

## Single Action—Nothing Else But

(Continued from Page 11)

der made to butt against a similar shoulder inside the firing pin recess of the hammer. This shoulder—not the base—is intended to support the firing pin and withstand all blows. Occasionally a firing pin may be found with too great an over-all length, which condition, in preventing the hammer from supporting the pin at the point intended by the designer, will put unwarranted strain upon its weakest portion every time the gun is fired. It is only necessary to assure oneself that the firing pin is being supported by the shoulder mentioned, to insure against any trouble. A few touches with a file on the base of the pin is the cure for this fault, and an overdose can do no harm.

As to the breaking off of the lips or shoulders that form the first two notches in the hammer—the safety (?) notch and the half-cock notch—the arm is better without them anyhow, and it is a worth-while improvement to file them away. The only use for the half-cock notch is to relieve a lazy left thumb of the extra duty involved in holding the hammer during the operations of loading. The safety notch is misnamed and no sensible man would carry the gun with a loaded cartridge under the hammer even if the hammer were serrated with such notches.

These two notches are directly responsible for nearly all cases of broken triggers; hence their removal will put a stop to that trouble. Should you, however, possess a gun with a stubborn trigger that breaks in spite of all rules, merely re-christen your thumb "trigger finger" and go on shooting. It is quite possible that few weeks in camp with that gun will make you forget all about replacing the trigger.

Rubber grip-stocks all break sooner or later on any gun that is subjected to ordinary hard use. Use the walnut stock and that trouble will be ended for all time; also you will have a grip that is better in every way. The older Colt catalogs listed the walnut stock as an extra, but I note that it has been omitted from the late issues. It is difficult to understand why that sturdy stock of one piece should be discarded while the inferior rubber stock outfit consisting of five separately catalogued pieces is retained.

Men who have used the old type of S. A. Colt are practically unanimous in their condemnation of the improvement (?) in the newer model which permits the base (cylinder) pin to be removed by merely pushing in on an exposed button. The new base-pin release method may be a bit more convenient and permit quicker removal of the cylinder for cleaning, but after one has had a base pin work out of his gun in pocket or holster, he is inclined to agree that the old set-screw lock is far superior.

NOW and then we read that some of the old timers carried their guns in the waistbands of their trousers with the loading gate swung open to prevent the gun slipping down inside. Some of them did—one, at least, to his regret. Burro Puncher Newman related to me an incident that he witnessed in Ouray,

Colorado, about thirty years ago. A man named Ed. Liggett, who carried his gun in the manner mentioned, was called upon to defend himself and went for his gun. As the cylinder turned in cocking, the cartridge passing the open loading gate slid back just far enough to effectively lock the gun. When the man was picked up he was decorated with four .41-caliber bullet holes.

Burro Puncher wore a reminiscent smile when he told how one old Cripple Creek miner, who carried his weapon in his trousers waistband (with the gate closed), slipped one over on the town marshal who "frisked" him with the intention of taking away his gun because he was getting pretty well "likkered." The marshal found no gun. By the simple expedient of drawing in his "tummy" the carouser caused it to drop down into his boots.

We often hear the Single Action's hammer lauded for its large size and great weight. I shall not question the desirability or convenience of its size, but the prevalent belief that great weight tends to make a hammer more certain of firing a cartridge is a delusion. It never occurred to me to question this fancy until one day I made a remark to Newman about the wallop possessed by the heavy S. A. hammer. Not content with a lengthy discourse then and there, he presented himself at my home next day all equipped to demonstrate the fallacy of the heavy hammer, heavy blow theory. Taking my own .45 S. A., he proceeded to do things to it. He fitted an end bushing around the forward part of the base pin bushing to eliminate all lengthwise cylinder play, put in a regular factory hammer, and adjusted the tension of the mainspring so that it had just sufficient power to fire primers with reasonable certainty. He then laid out before me the gun, an extra hammer which had been lightened by removing some of the unnecessary metal, a thick leaden washer specially made to fit around the hammer comb, and a paper bag containing about two hundred primed shells, and told me to start the fireworks.

After some discussion and deliberation I commenced. First I snapped the hammer on six primers with gun pointing vertically upward, then on six holding gun horizontal, and next on six pointing straight down. I repeated these operations three times and results were as follows: Shooting upward, twelve sharp reports, two sizzles, and four misfires; horizontal, fourteen sharp reports, four sizzles, no misfires; downward, all sharp reports. Total, fifty-four attempts, with forty-four sharp reports, six sizzles, and four misfires.

At Burro Puncher's suggestion, I then fitted the leaden washer securely to the hammer with the aid of a small wooden wedge, and repeated the previous performance. Result: Upward, all misfires; horizontal, all misfires; downward, two sizzles, sixteen misfires. Total, fifty-four attempts, with no reports, two sizzles, and fifty-two misfires.

We then shifted to the extra-light hammer without changing the mainspring tension. With this rig the same number of "shots" in all three directions gave neither a misfire nor a sizzle. During this experiment new primers

were used for all attempts—that is, the hammer was never snapped the second time on a primer—but just before quitting we tried and fired successfully under the light hammer all but ten of the primers that had misfired with the weighted hammer. The remaining ten were again tried under the weighted hammer and all failed.

It should be borne in mind that references to "falling" hammers are a retention from flintlock days, for modern hammers *do not fall, they rise*, except when shooting downward. This, of course, was the reason for pointing in the three directions during the experiment described. Results obtained indicate that Old Man Gravity was very much on the job. The object of eliminating fore-and-aft play of the cylinder was to insure the primers being solidly supported and always exactly the same distance from the hammer, no matter how the gun was pointed.

I once overheard a discussion of the Dempsey-Firpo fight, in which it was stated that the blow which knocked Mr. Dempsey clear out of the ring without doing him any great damage, was afterward described by the champion as a terrific, heavy push that *lacked snap*. With this parallel in mind, draw your own conclusions.

\* \* \*

## DOUGHBOYS CRAVE A SONG

BELIEVING that the infantryman of the American Army should have a rousing march song, a song that will express the spirit of the doughboy, who forms the backbone of the fighting forces of the country, the Infantry Journal, official publication of the United States Infantry Association of Washington, announces a contest for the music suitable for that song with a cash prize of \$1,500 to the winner. The infantryman of our Army has never had a truly representative marching song, one that he could call his own. He needs such a song, and the association of Infantry officers has arranged for this contest to stimulate its production.

The American doughboy's history is the history of the Army. The pages of the nation's peace-time and the war-time record of accomplishments are full of the glowing accounts of his deeds. His spirit of devotion to country, his vigor and enthusiasm, need to be set to music so that the doughboy of today and of tomorrow can put forth in song the traditional glories of this principal branch of the country's military service. A song is wanted that any man can sing or shout; one that will thrill him to the marrow; a marching song that will carry him along under the load of his pack as he swings along bent on missions for the honor of his country. No music for an anthem or a hymn is wanted, but music with vigor and pep, suitable for a marching song.

It is hoped that the best-talented song writers of the country will assist in this commendable endeavor. The contest opened November 1 and closes July 1, 1927. Further details may be obtained from the Infantry Journal, Washington, D. C.



# Sighting Shots at Shooters' Books



## WILD BILL HICKOK

(By Frank J. Wilstach. For sale by AMERICAN RIFLEMAN Book Department. \$2.50.)

EVIDENTLY the publishers of this interesting bit of fiction—for it is fiction, tied together by a thin thread of truth—had an idea that if a review copy were sent to *THE AMERICAN RIFLEMAN* it would fall into the hands of some folk who knew a few facts. Consequently, the reviewer had to buy his own copy. But it was worth the price. It is as entertaining a book as any Sabatini ever wrote. It is even more thrilling than the Diamond Dick, Young Klondyke, Jesse James, and the others which this writer some 40 years ago collected at a nickle a throw and hid under the floor in the barn lest the parental razor strap undertake a censorship of his literary tastes. But—

Mr. Wilstach just can't get away from his habits, formed by years of successful press-agenting. The star he is writing about is the greatest ever, the original sacred white elephant, the "most stupendous attraction." He christens 'Wild Bill' the "Prince of Pistoleers." This is sort of a shock, because Frank Wilstach knew Bat Masterson rather well, and must have heard from Bat—in the days when Jack's was a civilized rendezvous for good fellows—the low-down on Bill's skill and methods.

Strangely, too, he digs up the actual truth on the McCanles affair, but accepts without question the tale of Hickok's shooting up the celebrated signboard. There are many similarly amusing inconsistencies. However, as an historic figure, Hickok is not of any great importance. His contribution to the development of government, music, art, and the like was negligible, and it makes little difference, from the historian's standpoint, whether he could drive tacks with a handgun at 50 yards of miss a haystack at five. His chief value is as a legendary figure with which to grace a good story.

Mr. Wilstach has written a good story, one that gave this reviewer some pleasant relaxation. The book is well worth having.

WILBUR COOPER.

## THE SAGA OF BILLY THE KID

(By Walter Noble Burns. For sale by AMERICAN RIFLEMAN Book Department. \$2.50.)

WALTER NOBLE BURNS for many years enjoyed a reputation as one of the premier journalists of this man's country. He was regarded as an entertaining writer, a capable gatherer of facts, and a wide-awake reporter of high-lights. But when he set out to Boswell "Billy the Kid" he parked, for the time being, all of his talents except the first. He still writes entertainingly. And that lets his book out. Mr. Burns seems to have obtained

most of his so-called facts from the same folk who supplied the biographer of Paul Bunyan with the story of Paul's blue ox.

Ordinarily, so long as a book is entertaining and the subject thereof of no consequence as a figure in history, it makes little difference whether all the anecdotes are true. But when a writer as capable as Mr. Burns sets out to make a hero of a cheap, murdering little thief, something ought to be said on the other side.

Mr Burns starts off by outfitting the "Kid" with a halo—telling how the "brave little boy" killed the man who attacked his mother and had to fly for his life. The man, according to the Berns version, was a blacksmith. The "Kid" at the time was some 12 or 14 years old. Since all of the "Kid's" heroism is tied to his yellow carcass by this bit of twine, we may as well examine the evidence with a bit of care.

Those were rough days on the border, but the hard-bitten men who lived them didn't lynch boys for killing big bullies in defense of their mothers. If that yarn were true—that the "Kid" killed defending his mother—there would have been no need for him to seek safety in flight. He'd have been given a rising vote of thanks. It happens that the yarn is moonshine. The "Kid" killed a blacksmith, no doubt of that. The blacksmith was the post blacksmith at Fort Grant, and his name was "Windy" Cahill. He was murdered in cold blood when he bested the "Kid" in a friendly wrestling match in a dance-hall not far from the military post.

Witnesses to that murder still are living. Mr. Burns would have done well to have interviewed a few of them, for example Maj.-Gen. F. C. Ainsworth, U. S. A., retired, a gentleman of the highest veracity, a distinguished soldier, formerly adjutant general of the Army, and a young officer at Grant when the murder took place. General Ainsworth could enlighten him a whole lot. The balance of the book is of the same stripe. It is cleverly written, pleasant to read and all that, but why write cleverly about a sneaking little killer?

JACK ROHAN.

## A HISTORY OF FIREARMS

(By Maj. H. B. C. Pollard. Houghton-Mifflin Co. \$17.50. Edition limited, and reported sold out.)

THIS is one of those belated reviews that is less a review than an appeal to the publisher to reissue the edition. Because, "A History of Firearms," the publishers inform this reviewer, is completely sold out. 'Tis a pity, for the book should be in the library of every user of firearms, be he soldier, sailor, police officer, hunter, or target shooter. Perhaps a sufficiently strong clamor from the shooting world would induce the publishers

to reissue. To get the book, Major Pollard has compressed an amazing amount of information into comparatively small space. He apparently has boiled down the research of a lifetime into a sort of primer or guide for those who would learn of the origin and development of the weapons which today are accepted as a matter of course. His treatment of each type is, of necessity, brief. But he gives enough information to point the road for any gun-bug who wants to acquire expert knowledge of any particular type or period. No man, of course, could, in one short lifetime, become an authority on all. Beginning with a summary of the information available on the earliest types, Major Pollard traces the development down to the modern arm of today. He reproduces the various proof marks and gives a comprehensive list of gunmakers. The volume is profusely illustrated with plates of all available types, including the famous "Walker" Colt. Without being a knocker, one might remark, that in this Mr. Pollard had more luck than did Colonel Colt when he sought a Walker Colt as a pattern in order to resume reproduction of that arm. But Major Pollard got the photograph from a collector, and collectors acquire strange and marvelous things. All in all, Major Pollard has made a distinct contribution to firearms literature. Every gun-bug eventually will want a copy. But—

Try and get it, unless the publishers reissue the book. The lucky lads who have copies are hanging on to them.

ROBERT DERR.

\* \* \*

## CAMPAIGNS OF THE CIVIL WAR

(By Walter Geer. For sale by AMERICAN RIFLEMAN Book Department. \$5.00.)

"CAMPAIGNS of the Civil War," is an excellent history of the great conflict, and exceptionally free from the personal bias so common in work of its kind.

The political situation preceding the great struggle is set forth concisely without recourse to the usual ambiguities.

Mr. Geer has succeeded in conveying the important events of the campaigns, both east and west, together with much invaluable data in a style that is never tiresome.

The constant change in commands of the Army of the Potomac is recalled, together with the political interference to which they were subjected by the Government.

The work is supplemented with detailed maps of the various engagements, giving the positions of the various units and relative strength of the two armies.

The great flanking movements of Lee's lieutenant, Jackson, are described in a most interesting manner.

Throughout the work a great mass of data is produced which forces one to the conclusion that the success of the Confederates during the first part of the great conflict was in the main due to their being better officered than the Federal troops. This, as Mr. Geer points

(Continued on page 42)

# Shooting in Northern Europe

By Capt H. Victorin, European Correspondent of The American Rifleman

THE third of October, 1926, started the first yearly competition with the free rifle between the four Northern countries of Europe—Sweden, Denmark, Norway, and Finland. According to the stipulations, every nation has to select a team of twelve, the ten best scores to be counted as team-score. The match was to be completed on a fixed day, and within eight hours. Every nation was allowed to choose any three of the ranges, in order to diminish the expenses.

The large newspaper, *Stockholm Tidningen*, at the Swedish capital, presented a magnificent silver cup about 25 inches high. To this splendid gift was added a morocco-bound book, in which all data and photograph regarding every competition will be preserved from year to year. The Swedish team was brought together at Stockholm.

The rain was drizzling and the wind sweeping over the range from 7 o'clock in gusts. weather was practically as bad in all the four countries. However a real rifle-man, as everyone knows, is always in high spirits whenever the sport is good. Besides everyone was eager to double the performance at Copenhagen in July—and just a little better, too.

One of our army rifle experts, V. Knutsson, who a fortnight earlier had made friends with an American model rifle (scored 535 in 60 shots, first competition after a few days' training) in Copenhagen, just managed to struggle free

of the 500 points margin, was now expected to go after the laurels at full speed. Another and unknown factor was a farmer, come down from the woods, and who stalked about with a

major part started their shooting, were good and promising. Wester and the young giant, Olle Eriksson, scored an average well above 80 in every string. Andersson and Knutsson

were just a point in the rear. But as soon as the shooting commenced in the kneeling position, we prepared to gather the scalps of our opponents in a good-sized barrel. Wester in high spirits started with a string of 93 and bettered in the next to 94, dropped incidental to 86, but finishing 95—a total of 371, that made our head-gear jump into the air. Knutsson's strings were a hair's breadth behind Wester's—92, 91, 92, and 90, a total of 365, and close at his heels raged Olle Eriksson, who had finished his three strings of 90, 90, and 91 with a most disgracing 85.

Mauritz Eriksson, who has been a member of our international teams since 1912, and who was present at Camp Perry in 1913, winning the army-rifle match with the world's record of 485, had commenced his shooting in the prone position with a score of 379 points (95, 94, 92, and 98), stopped in the kneeling position only 2 points behind his namesake, Olle Eriksson, and gathered 354 points.

Andersson, who won the 60-shot match at Copenhagen with 531 points, was rather unlucky

only scoring 340 points kneeling.

We were now expecting something about 1,080 for Wester, as he is capable of any—  
(Continued on page 15)



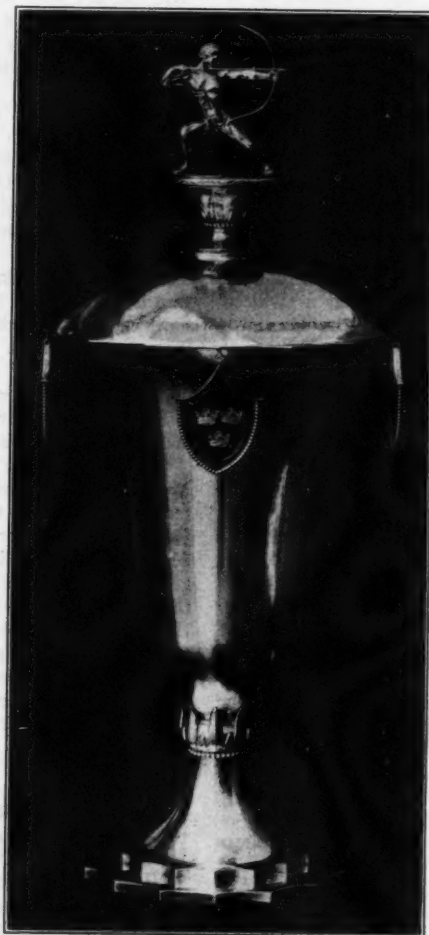
I. WESER, SWEDISH CRACK SHOT



SHOOTING—A. ANDERSSON; SITTING, THE EDITOR, SPOTTING



THE TWO FULL GROWN ERIKSSONS DOING THEIR STUFF (REAR VIEW)



CUP PRESENTED BY SWEDISH JOURNAL, "STOCKHOLM TIDNINGEN"

real homemade fancy stock, the palm rest and pistol grip made in one piece of beautiful curled birch, with grooves for every finger.

The scores standing, in which position the



# A New Front Sight

By Philip B. Sharpe

FOR many years there has been no change or improvements in the standard types of revolver sights. The standard available sights include an ordinary half-moon blade front sight, either of taper or square section, on ordinary revolvers having "fixed" sights. For target arms we have had thin and thick blades having flat and round tops, beads, and the familiar Partridge type—square face, square section.

In the pages of *THE AMERICAN RIFLEMAN* for several years one sees an occasional article on a special front sight designed by one of our experimenters—bless 'em! But we fail to notice much improvement in standard factory front sights.

This past summer, while a guest at the Springfield Revolver Club, the writer noticed a cop toting a 4-inch .38 Special with target sights. Anyone who is familiar with the Springfield cops knows that those boys aren't to be classified with the average of the Boys in Blue. They not only know how to punch holes in paper, but they know how to handle themselves "in the line of duty." So we looked his arm over.

Investigation disclosed that the sight, pictured herewith, is known as the "Call Front



Sight." It is a modification of the Partridge sight, and is 1/10 inch thick. Imbedded in the face of the blade, full width, and flush with the top, is a 1/10-inch gold bead. The face of this bead is turned off flush with the face of the blade.

In practice, this sight is the most efficient one the writer has yet seen. Without blackening the bead, if sighting from a dark firing point at a lighted target, one gets the effect of the ordinary Partridge. The bead becomes lost. For outdoor firing in daylight without a glaring sun over one's shoulder, the bead stands out gold against a dark object and loses its prominence against a white target. Its location is such that it will not change the grouping, and it can not reflect light from one side, a feature which all users of gold-bead sights will appreciate.

One of the most remarkable features of this sight is not merely its target effect, but that it makes the best police sight the writer has ever considered. It has disadvantages, true, in that it might catch in a pocket, but with a properly constructed holster this would not happen. It is as strong as the ordinary Partridge sight. But its use is what will interest police mostly. The sight can be used by moonlight, or by the aid of a distant street light. Such a statement seems too broad, but the writer obtained one of the new S. & W. Military models with one of these sights, and in the past two months he has convinced himself of the truth of this statement.

Handling a gun in total darkness would be impractical, but the police officer is very often called upon to take a few shots at a fleeing criminal with such poor illumination that ordinary sights are of no value whatever. The Call sight does not permit him to make consistent tens in darkness on a paper target, but it does make it possible for him to line his sights up on an object in very poor light.

On a hunting sidearm it should prove of considerable value. It is ruggedly constructed and should stand the gaff of ordinary rough woods duty.

The Call sight was designed by Mr. Call of the Smith & Wesson firm. It is now available, at an extra charge, on all target arms manufactured by that company. Other Military models can be fitted with one of these by milling off the fixed blade and top of sight lug. The fixed rear notch would then have to be opened to accommodate the thick sight.

new type of free rifle used by Mauritz Eriksson during the match. The Swedish barrels, made by the government factory, are extremely good, and the material excellent. His own score, 1,053, including six strings of 90 or over, were made with a barrel cal. 6, 5 mm. The American barrel is 7,62 mm. and a stream-line bullet made at a Swedish factory.

## Shooting in Northern Europe

(Continued from Page 14)

thing between 380-385 in the prone position. But his nerves or something seemed to be completely lost. 7, 9, 8, 7, etc., were mournfully registered, and this failure was irreparable. His score card showed at last only 354 points, that is, fifteen points in the rear of his score kneeling. Thus the grand total stopped at 1,056.

A good performance was Andersson's—376 prone, including a four, caused by an unlucky comrade (93, 97, 94, 92). The same number of points were scored by Knutsson, who, as usual, chattered gleefully between every shot. His grand total, 1,065, was duly celebrated by the interested onlookers, as it was a new Swedish record.

Meanwhile, Olle Eriksson, fighting his rifle instead of his nerves, was ruefully contemplating his 364 points prone just as Mauritz Triksen in grand style finished his last string standing, with 85 points, creating a top score of 1,070 points, and sending Knutsson's half-an-hour-old record to Walhalla, i. e., the battling ground of the gods of the Vikings.

Our five best men finished with an average of 1,056 points and the team score was

fixed at 10,311 points, that is an average of 1,031 points. The victory was without doubt ours.

At a banquet later in the night the telegrams were slowly gathering. From Finland nothing over 1,051. Norway's best score, 1,043. Not until late in the morning the scores of the battle-worn Danes arrived. As expected, the thorough sportsman, Lieutenant Sætter-Lassen, was at the head with 1,050. Their team-score stopped at 10,101. First to fourth places were secured by our team, and the nearest team score was two hundred and some odd points in the rear!

This success is just the stuff that is now invaluable, both for our free rifle experts and for the free rifle shooting. But there is still a long, long way to go. The aperture sights are of a rather too rough type; and the necessary skill in the real art of free rifle shooting is not thoroughly mastered, more training and better self-reliance are yet to be acquired.

Still, some details of our equipment are up to date. The gun crank, Olle Eriksson, has invented a double set trigger, which is really splendid. He also has designed the Danish

### TEAM SCORES

Sweden, 10,311 points  
Denmark, 10,101 points  
Finland, 10,037 points  
Norway, 10,015 points

### INDIVIDUAL SCORES

M. Eriksson, 1,070, Sweden  
V. Knutsson, 1,065, Sweden  
I. Wester, 1,056, Sweden  
O. Eriksson, 1,053, Sweden  
Groenholm, 1,051, Finland  
Sætter-Lassen, 1,050, Denmark  
Roegerberg, 1,043, Norway  
Niemenen, 1,042, Finland  
Andersson, 1,037, Sweden  
N. Larsen, 1,033, Denmark  
Johannessen, 1,032, Norway  
Larsen, 1,032, Norway  
Muslie, 1,030, Norway

### BEST SCORE

Standing: K. Vethe, Norway, 353 points  
Kneeling: I. Wester, Sweden, 371 points  
Prone: M. Eriksson, Sweden, 379 points

### SPECIAL NOTICE

Members of the N.R.A. and citizens who do not know the location of the Army post or camp at which the International Team Tryouts for their sections are to be held should get in touch with the Corps Area Commanders in their respective corps areas, or with the adjutant general of their State. Either officer will be glad to give full directions for reaching the shooting ranges.

## Gossip of Firearms Trade

### WINCHESTER MAKES MODEL 54 CARBINE

THE Winchester Model 54 high-power bolt-action rifle, first offered to sportsmen about the middle of 1925, is now available in carbine form. The carbine will be furnished for the same cartridges as the rifle, the .270 Winchester and .30 Government '06. It offers the features, which were developed in the Model 54, in the carbine type, with an over-all length of 40 inches.

This new carbine has a 20-inch round nickel-steel barrel which is fitted with raised bases for front and rear sights so that there are no cuts into the normal contour of the barrel.

The front sight is a low Lyman No. 26W Gold Bead, and the rear sight a specially designed Lyman No. 66W carbine sight having a fixed leaf for point-blank range of 200 yards and a folding leaf for about 500 yards, both leaves having "U"-shaped sighting notches.

The receiver has screw holes for attaching a Lyman No. 48W micrometer windage receiver sight, which will be furnished on special order.

This carbine has a one-piece walnut stock with plain pistol grip, fluted forearm and a cross-ribbed carbine type steel butt plate. It weighs about 7½ lbs.

The Model 55 Winchester, placed on the market a few years ago, chambered only for the .30 Winchester (.30-30) cartridge, is now available in two other calibers, .25-35 Winchester and .32 Winchester Special. It is furnished in take-down style only.

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### STEVENS ANNOUNCES NEW SHOTGUN

THE J. Stevens Arms Company of Chicopee Falls, has announced a new hammerless repeating shotgun to the trade.

The new gun is made in 12 gauge; barrel is from 28 inches to 32 inches long and comes in cylinder, modified or full choke.

The original design of this new hammerless was made by John Browning of Ogden, Utah, designer of many successful repeating firearms. The take-down feature of this shotgun is radically different from that used in any other. It screws up tight each time the arm is assembled and the arm cannot shoot loose at that point. When operated, the sliding breech travels in a straight line backwards and forwards without any of the curve or slope. The gun has an independent safety, a safety firing pin, side ejection, and visible locking bolt. Its receiver is drop forged; breech is solid. Slide handle and stock of checkered walnut. Any standard factory-loaded shell up to 2¾ inches in length can be used. The gun takes six shots—five in the magazine.

\* \* \*

### NEW COLT'S TARGET PISTOL

A NEW model that will appeal to the discriminating target shooter is now to be placed on the market by the Colt's Patent Fire Arms Mfg. Company.

For many years there has been an insistent demand for a single-shot target pistol that would be just a step ahead of anything now on the market—an arm with the hang and balance of a Colt and while it has been impossible to produce a model that would suit all the idiosyncrasies of the dyed-in-the-wool 'gun crank,' the new model is the result of many years of experiment, consultations with the leading target experts of the country and exhaustive factory

and practical tests in the hands of Camp Perry shooters, Olympic team members, and individuals in actual match work.

The new model is built on the lines of the well-known and popular Colt Officers' Model, hence a shooter who desires to use both a caliber .38 revolver and .22 pistol may do so without change of grip or style of holding.

The choice of names was decided by popular vote—that of the majority of the several thousands of shooters, being "Camp Perry."

The "Camp Perry" Colt is adapted to the well-known .22 long rifle cartridge; has a ten-inch barrel especially chambered to insure that great degree of accuracy demanded by experts; the length over all is 13¾ inches and the weight 34¼ ounces. Either bead or Partridge sights are supplied and the action is hand finished, with light, clean, and smooth trigger pull; the flat top and sights are matted to prevent sun-glare or light reflection, thus eliminating the necessity for "smoking" the sights, and trigger and back strap are finely checked to give a steady grip without hand slipping.

\* \* \*

### CONVERSION DISTRIBUTES HATCHER BOOKLET

THE Conversion Products Corp., 624 S. Delaware Avenue, Philadelphia, Pa., manufacturers of STAZON Products for shooters, are distributing an interesting booklet of 14 pages entitled "Notes on the Cleaning of Firearms," by Maj. J. S. Hatcher, Ordnance Department, U. S. Army, giving data of recent experiments and investigations by the U. S. Government. The subject is treated in a scientific manner and at the same time is presented in a way that is readily understandable to any gun owner.

The booklet was published by the Conversion Products Corp., according to Maj. L. W. T. Waller, president of the corporation, because "There is no subject of greater importance to firearm users than the proper care. The elements of scientific cleaning are not generally understood by many hunters and others who frequently use shotguns, rifles and revolvers. This lack of knowledge is largely responsible for many ruined guns."

A copy of the booklet will be sent to any one desiring it upon receipt of request.

\* \* \*

### NO. 80 STILL ON DECK

IN CONNECTION with the surmise of Mr. Hervey Lovell's article on a "Schuetzen Powder Substitute" in the Dec. 15 issue of THE AMERICAN RIFLEMAN, to the effect that the manufacture of No. 80 powder would be discontinued, THE AMERICAN RIFLEMAN is advised by the du Pont company that there is no intention to discontinue the manufacture of this famous powder.

\* \* \*

### A GOOD AIR PISTOL

WHAT is the best and hardest shooting air pistol on the market?—H. L. F.

Answer (by Major Hatcher). The Webley Air Pistol, which you will find advertised in THE AMERICAN RIFLEMAN. This pistol is made in either .22 or .177 caliber. The .177 seems to have more penetration than the .22.

### DOUBLE DERINGER DOPE

By DAVID P. PLATT

I HAVE just finished testing various makes of cartridges in my Remington double derring (chambered for the .41 short rim-fire black powder cartridge). The cartridges fired consisted of 100 Peters, 50 Remington, and 50 Western; and before this I fired about 300 Winchester cartridges. I did not have a single misfire with any of these used in the test or any others that have been fired in this derringer. The reliability of this particular pistol may lie in the fact that the hammer hits a very hard blow; the rims of two of the Remington cartridges were cut entirely through, and I have had this happen once or twice before when using Winchester ammunition.

As far as power is concerned, the Peters cartridges, loaded with 8 grains of semi-smokeless, and the Winchesters, loaded with 13 grains of black, are considerably ahead of the Remington, which I believe uses 10 grains of black powder, and the Western. All of these companies use a bullet of 130 grains, which appears to be very soft, as it deforms readily in yellow pine. Not having any of the regular 7/8 soft pine boards (white pine) usually used in penetration tests, I tried the pistol on a large dry goods box made of what looked like ordinary yellow pine, the sides being 5/8 inch and the ends 7/8 inch thick. Peters cartridges shot through both sides of this box, which seems to be about the maximum penetration for this pistol. The penetration and recoil of the Winchesters seems to be about the same as Peters. Remington bullets got through the end of the box but did not have sufficient power to go through both sides. Western ammunition couldn't penetrate the 7/8 inch end board but managed to pass through one of the sides.

The ability of this gun to hit an object the size of a dog at 20 yards is very poor, especially when the shooter does not know whether the top or bottom barrel is going to fire. I am still referring to this particular pistol that was used in connection with the above experiments; other Remington deringers may be different.

One man wrote me several years ago that he did not have any difficulty hitting beer bottles at 20 paces with one of these guns. Personally, I can't be sure of making five consecutive hits on the 50-yard Standard American target, which measures about 22 inches square, at a distance of 25 yards, although with a revolver I have put five consecutive shots on a 1½-inch circle at 20 yards.

The center of a 10-shot group made with the derringer at 15 yards measured 15 inches above the point of aim, the shots from the upper barrel averaging about seven inches higher than those from the lower barrel. All of this is, of course, of no importance when this little gun is fired at a man-size target a few feet away. If all the Remington deringers were as reliable as the one I have, I should consider them the ideal "auxiliary battery" for the side coat pocket of the police officer, as Mr. Derr suggested in a recent article.



# The M-1 Caliber .22 Springfield

By Capt. Grosvenor L. Wotkins U. S. A.

SPRINGFIELD ARMORY is now in production with its Model 1922 M-1 or caliber .22 magazine rifle for sale to civilians who are members of the National Rifle Association. The purchase of these weapons is made through the office of the Director of Civilian Marksmanship, War Department, Washington, D. C. Rifles now can be shipped upon receipt of the sale price.

This rifle is in many respects one of the most unique small arms in caliber .22 that has ever been fabricated in this or any other country. The quality of material, the care taken in manufacturing the parts that go to make up the completed whole, the drastic inspection program insisted upon that this piece may live up to the high standards of Springfield Armory, and the final targeting at a range longer than that employed by any other manufacturer of caliber .22 rim-fire rifles that I am aware of, assures the purchaser that he is not making a mistake in adding one of these fine weapons to his battery.

Everyone familiar with the Springfield rifle, caliber .30, knows that it is a good rifle, that it has earned this high regard because it is soundly built of fine materials by skilled workmen trained from early youth and imbued with that old guild spirit that ever has produced and kept alive that fine and accurate touch so essential if true art is to survive, for it is well to remember that there is such a thing as the art of small arms manufacture even in these times of repetition machinery to the *n*th degree. This caliber .22 rifle, as manufactured by Springfield, is therefore in all respects representative of the latest art of gun making and the proud possessor of one of these rifles may rest assured he has a splendid tool for the work it is designed to do.

The quality of the steel used in the barrel is identical to that used in the caliber .30, Model of 1903, rifle (Springfield). This steel, as most riflemen know, is tough, of fine texture, and as worked up by Springfield Armory produces an exceedingly smooth and mirror-like bore surface. The barrel, when finished, weighs approximately 3½ pounds and is 24 inches long. The contour is identical to that employed in the famous caliber .30 Sporter manufactured by the Armory. This contour produces a very stiff, reliable barrel and the targets made with this barrel in either the little caliber .22 or the powerful 6,000-yard-ranged caliber .30 cartridge are most uniform, compact, and exceedingly satisfactory. I consider this barrel contour to be the most satisfactory today, for it is not only very graceful

and pleasing to the eye but produces that happy mean which makes for reliable shooting.

The rifling has, of course the standard pitch of one turn in 16 inches. Various combinations were tried, but it was early found that this pitch is by far the best. The rifling is of the concentric type, with grooves and lands of equal width, or approximately so. The bullet seat represents a great deal of study and experimentation. The chamber is very tight, the tightest quantity production chamber known to this writer, and is .575 in length. Now about the question of rifling and the

ceedingly high standard of exactness, and does not take a great while to carry out.

The usual form of rifling head employed in small arms carries two cutters, but in such a small caliber as the .22 this is very difficult to do, and therefore only one cutter is the general practice. The rifling head is a mere shell in caliber .22, and requires constant attention simply because it is so frail. Springfield Armory uses what is known as the "scrape" cutter type, which removes an exceedingly fine amount indeed. The "scrape" method, as distinguished from the "hook" method—the latter being the usual system employed by small

arms manufacturers, can nearly always be distinguished by the smooth and perfect condition of the work—lack of tool marks in the groove, etc. It requires great skill to make and dress the cutters used in the "scrape" method, and the time to rifle a barrel

is considerably longer, but we believe it pays in the end and therefore follow this system entirely in all our barrels, no matter what the caliber may happen to be. It is this system, coupled with consummate skill and attention every minute, that largely accounts for the remarkable uniform and accurate barrels turned out by the Armory.

The "scrape" method cuts both ways, but the major cut is performed on the pull stroke, while on the push stroke a very fine cut is made, a sort of burnishing as it were, but nevertheless a removal of metal results. In the "hook cutter" method the cutting stroke is in one direction only and the amount of metal removed is considerable. It is a far faster method and the cutter of cutters are quite easy to make up.

It may be of interest to small-bore riflemen to learn that the first caliber .22 barrels made in quantity by Springfield Armory employed the Pope form of rifling, Harry Pope himself making the master barrel, which we followed thereafter. This was in the days of the Krag-Jorgensen, when that action was used by us to work up a single-shot rifle having the same general balance and outlines of the caliber .30 Krag. It was an excellent shooter. These barrels had six grooves with very fine lands, mere threads as it were, with very wide grooves. Their groove diameter was approximately .226 inches.

The Springfield, some years later, after the Model 1903 action was adopted, brought a caliber .22 gallery rifle having a six-groove barrel. Again, just a few years ago, while this Armory was once more testing rifling, etc., for the new caliber .22 now being manufactured in large numbers, a six-groove was made up to be tested against a number of four



SHOWING THE STANDARD MODEL 1922 M1 RIFLE WITH N.R.A. STOCK, WHICH IS THE TYPE NOW BEING MANUFACTURED FOR THE D.C.M., FOR SALE TO MEMBERS OF THE N.R.A.

number of grooves which are the best. If we really knew that, we should all long ago have adopted it—would be universal, in other words.

Just because we cannot agree on this subject you will find rifles, even in this small caliber, with varying numbers of grooves up to and including eight, or even more. All these various combinations perform finely. The object, of course, is to spin the bullet with the least amount of disturbance—to displace as gently as possible the metal of the bullet as it slides into the bore.

There are many forms of grooving used, as we all know well, but the two most commonly employed are the segmental and the concentric, and you will find that the concentric by far leads all the rest combined. This is because it is not only just as accurate as any other form, but is far easier to cut accurately in barrel after barrel. Actual tests have proven this to the satisfaction of most arms manufacturers, who, if they did not consider this to be so, would not, you may rest assured, continue a method not conducive to accurate and uniform output. The fact of the matter is they are all good, if well executed, and history perfectly bears this out. Springfield uses the concentric.

From an inspection standpoint it is more difficult to check up on bore measurements with the barrel rifled with an odd number of grooves than with an even number, and it also requires a longer time to rifle the bore, too; however, if there was any undoubted virtue in this multiplicity of grooving, Springfield Armory certainly would follow it, but we have never been able to observe the slightest improvement, so we adhere to a form which is simple to cut, can be maintained to an ex-

and eight grooves. Very exhaustive tests indicated to us that the four-groove shot with far greater regularity, or so at least it appeared to us, and we take mighty little for granted, I might as well state here and now, so we finally adopted our standard four-groove type of rifling for our caliber .22 Model 1922 M-1 rifle. When this Armory tests anything in the barrel line particularly it makes up a quantity of each type so that an average may be arrived at. One barrel won't tell you anything, two might tell a little, but even so, that is not enough, but six of each type certainly will lead to a fairly accurate conclusion, and this is the usual method followed. So we pin our faith on the four-groove, and I believe very wisely so, because it is doing remarkable work day in and day out, and is, besides, a grooving not easily injured through careless cleaning or the like.

Our measurements on the land are minimum .218 and maximum .2185. Our groove measures for the minimum .223 and maximum .2235. The width of land is .0854 and the groove approximately the same, so it will be seen that groove and land are of equal width. The depth of groove is .0025.

I HAVE tested a number of these excellent little barrels in Martini actions just to observe what they would do under different conditions of striker and breeching, and they always performed with remarkable regularity and accuracy. It is a splendid barrel—of that there cannot be the slightest doubt—and time will prove it most conclusively to all those lucky riflemen fortunate enough to own one of these splendid rifles.

It requires approximately one hour to rifle a barrel in caliber .22, the average number of strokes required to cut a groove being seventy. It can readily be seen from this that the process employed more nearly approximates a scraping or burnishing one, for the amount of metal removed by each scrape of the rifling cutter is so fine as to baffle description. It is for this reason solely that these barrels have that remarkably high and brilliant sheen attributed to lapping—a process the Armory positively forbids. Lapping is a process of

polishing the finished bore with a fine abrasive, which has long been a custom in small arms manufacture in order to promote that uniform surface so desirable in rifled arms particularly. It does, when skillfully carried out, produce a very uniform surface, but it also tends to enlarge the bore somewhat, besides dulling the driving edge of the lands.

It is perfectly true that many barrels rejected by this Armory could, with a bit of touching up here and there, be made into excellent performers no doubt, but exceedingly

striker form with flat point. The very greatest care is observed in assembling and testing this firing mechanism and I doubt if there are many small arms establishments in the world who take greater pains to assure themselves that this most important of all parts of a caliber .22 rifle is fairly adjusted at the outset. The striker is adjusted for protrusion to a nicety that can only be seen to be appreciated.

Each bolt is adjusted to its rifle and thereafter should not be interchanged. Each bolt carries the serial number of the rifle to which it is fitted, and this bolt is adjusted so that the headspace clearance between head of cartridge when seated home in chamber and face of bolt when it is closed on the cartridge ready to fire cannot exceed .003 of an inch.

The magazine is now of the flush type and holds five rounds. The magazine is inserted through an opening in the floor plate and is held firmly in place by a spring catch actuated by the thumb. The guard, trigger mechanism, etc., are identical to that of the service rifle.

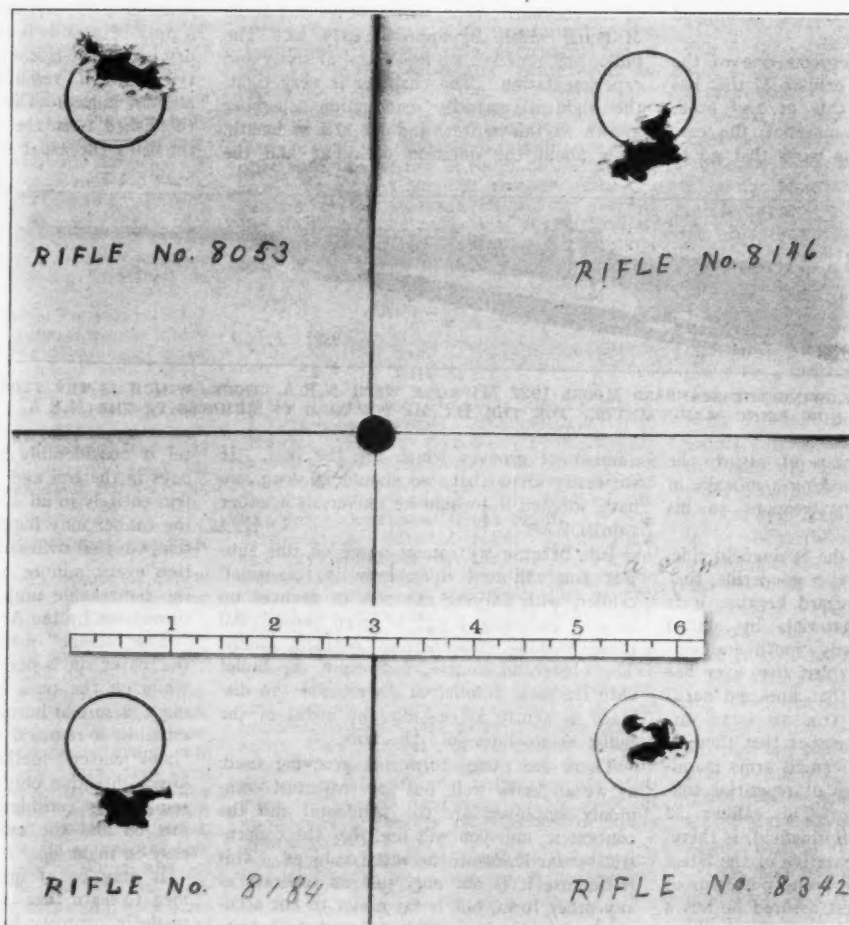
The trigger pull is about four pounds, and adjustment is easily carried out by the rifleman or a skilled gunsmith.

The front sight is the standard military blade, .05 in width, and the rear sight, the Lyman No. 48, with short slide having graduations or clicks of  $\frac{1}{2}$  minute for elevation and de-

flection. This is a most excellent combination, very accurate and dependable in all sights.

The Lyman people make an admirable hooded front sight especially for this rifle, with which it is possible to employ several combinations of aperture and post which this well-known firm of sight makers regularly furnish on order.

The stock is a man-sized affair of sensible proportions. It has a well-proportioned comb, full and well moulded, and a pistol grip of excellent proportions and so positioned that it does the work a pistol grip is intended to perform but rarely does. The stock is made primarily for prone work, is  $13\frac{1}{2}$  inches long and has a well-shaped, checkered butt plate of steel. The fore-end is rather full, furnish-



COMPARISON OF GROUPS FROM FOUR DIFFERENT RIFLES

drastic inspection has clearly shown that only by adhering to this high standard of exactness can the very finest work be counted on in volume, and this in turn does tend to reduce considerably the rejection element. Slack-off in rejection has a very serious effect on fine craftsmanship, and especially is this true with your artists in steel.

The receiver is manufactured from the same stock as that used in the service rifle, and closely follows that action in process of manufacture and general outline.

The bolt, in general outline, follows that of the service rifle, and is of the identical material and treatment throughout. The firing mechanism now very closely approximates that of the service rifle and is of the single-



ing the hand a good support. The rifle weighs about nine pounds without sling, the weight varying somewhat according to the grain of the wood. This stock is known as the N.R.A. model and is identical to that furnished on the caliber .30 Sporter manufactured by the Armory. It is finished in the same manner as are the National Match stocks for rifles

cent better this drastic test. The rifles are, of course, held in a machine rest during this test and the sights are at this time aligned for elevation and deflection-windage. It will, however, probably be found that each rifleman will have to readjust to suit his own eyes and method of holding, but as the Lyman sight is admirably constructed to zero, this will prove not only a pleasant task but a desirable one.

THE rifle is function tested by firing several bursts of magazine fire and is then targeted. The targets are made in duplicate the original going with each rifle directly to the pur-

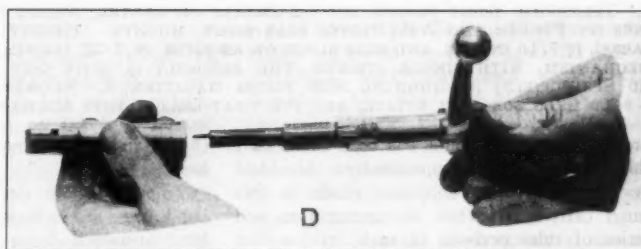
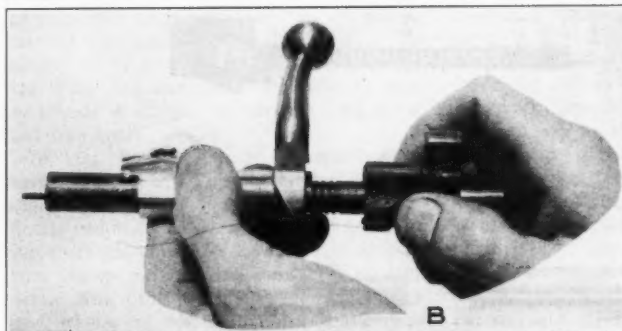
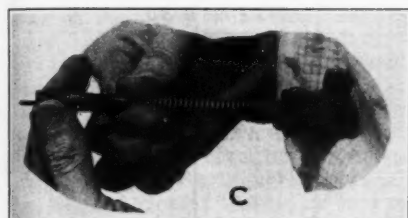
ing better work for you. Rifles are a good deal like automobiles, in that some people never can get good results while others appear always to be lucky.

To those who appear to be constantly cursed with a Jinx, there is little to be said, for there is no known remedy if this evil creature decides to take up his abode permanently in your quarters.

Seriously, these rifles now coming through at a steady pace are decidedly uniform in their action; of course there are the ups and downs every real rifleman knows well will come, no matter how perfect the product.

THE Graph illustrated is interesting, for it indicates several things which concern the user and what he may expect when everything is working as rifle and ammunition manufacturer strive to bring about. This graph shows eight rifles which have been tested, each rifle

having been fired 100 shots in 10 ten-shot groups at 100 yards from machine rest in a specially constructed indoor range sheltered from all disturbing influences. The figures on the left represent mean radius measurement in tenths of an inch and the mean of the 10 mean radii measurements obtained from each of



REMOVING AND DISMOUNTING BOLT IN .22 SPRINGFIELD

in caliber .30 which, after their wood-working treatment has been completed, are subjected to a prolonged soaking in linseedoil. The stocks are real walnut, which is becoming every year harder and harder to obtain.

The barrels are browned—term for the finish applied by rusting the exterior of the barrel—and this browning is noted for its durability. The receivers are given a treatment in the furnaces which produces a beautiful, durable black finish.

The barrel is drilled for the Winchester telescopic sight front block, while the receiver is drilled for the rear block. These blocks are not furnished with the rifle but must be obtained from the manufacturer through the N.R.A. These blocks are set 7.2 inches on centers so that an adjustment as fine as  $\frac{1}{4}$  minute per hundred yards of range can be read off the telescopic sight rear mount. A photograph of the mounts is furnished and their height given in order that the right form of mount is understood. The reason for attaching the rear mount on the receiver is because it was found that with the Winchester glass and mounts in combination with the rather long stock, correct eye relief was only possible by positioning the rear block on the threaded hood of the receiver, and as it was desired to maintain a reading of  $\frac{1}{4}$  minute, this adjustment could not be maintained otherwise. These blocks fit equally well the Fecker mounts and will produce the same readings.

The rifles are tested at 50 yards, the longest testing range for the purpose of passing caliber .22 rifles that I am aware of. The usual range is 25 yards and many are only 50 feet. The rifle must place a group of ten consecutive shots that can be touched by a circle one inch in diameter, and fully 75 per

cent better this drastic test. The rifles are, of course, held in a machine rest during this test and the sights are at this time aligned for elevation and deflection-windage. It will, however, probably be found that each rifleman will have to readjust to suit his own eyes and method of holding, but as the Lyman sight is admirably constructed to zero, this will prove not only a pleasant task but a desirable one.

The series of targets shown are representative of a day's firings in testing the weapons for final acceptance. With suitable ammunition you should be able to duplicate them provided you can "hold 'em and squeeze 'em." It is only fair, however, to remark that a little Jinx sticks his harpoon into us just as lovingly and frequently as he does into the innards of your pet rifle and ammunition after it has passed into your hands, although it managed to pass the most rigid tests the makers can conjure up. This hideous little pariah can, by simply cocking his eye at a slightly higher angle, jabbing his harpoon with great dexterity the while into a smoothly running output, so completely upset calculations as to beggar description.

Therefore, don't fancy that your rifle should always perform up to the targets illustrated, if by chance you should happen to get a weapon with a group somewhat larger than these shown, mean that it is incapable of do-

ing better work for you. Rifles are a good deal like automobiles, in that some people never can get good results while others appear always to be lucky.

We connect these points in order to emphasize the result. Now, mean radius figures express very little to the rifleman, mainly because what concerns him most is the actual size of the group, and in this he is perfectly correct, but the poor manufacturers of ammunition and rifles have a variety of troublesome points to watch, such as variations in velocity, variations in whip and jump mechanical inaccuracy of barrel due to changes in barrel time, in the bullet and wind, although in this particular instance we can ignore wind. Mean radius takes into account dispersion in any direction from the center of impact; it shows us the average error which can be fairly expected from a series of shots, the probable error, the probable dispersion of any individual shot from the point of aim more clearly expresses it.

It is very difficult to visualize a group when mean radius is given, and this is unfortunate, but this measurement most cer-



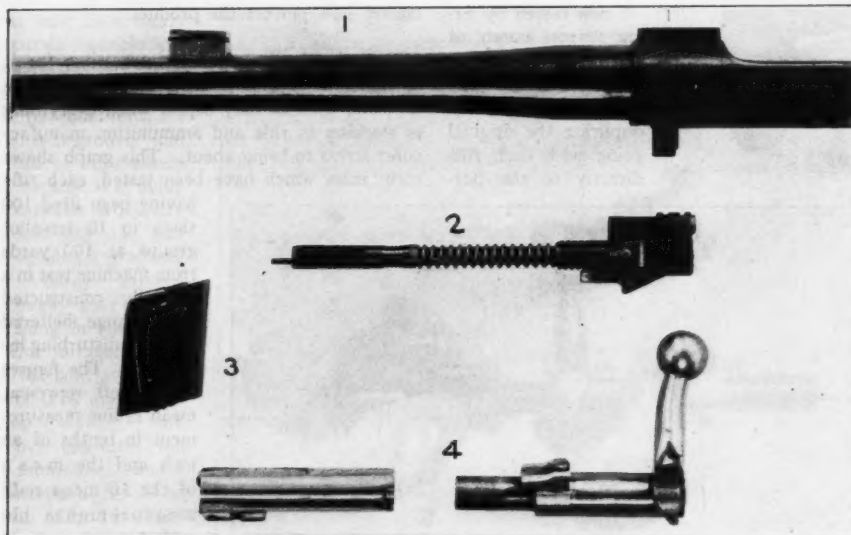
tainly does tell us how steadily an ammunition performs in a certain rifle or rifles as nothing else will, and so it is the usual custom throughout the world with arms and ammunition factories.

The ideal mean radius is generally considered at 100 yards to be 0.75 inches with caliber .22 long rifle ammunition. It is usually taken after a series of seldom less than 100 shots, the mean of the means of the 10 series of 10-shot groups being then computed. It sometimes is not taken till 500 shots have been

to a vertical position, raise the bolt handle and draw out the bolt. See figure "A". Hold bolt mechanism in right hand, press latch plunger in with thumb (the bolt is in two parts and is held together with a latch, the little plunger operating the latch) or right hand to unlock latch, turn bolt head with left hand slightly to the right or left and remove. To remove extractor, proceed as follows: Hold bolt head in left hand, with right hand push the point of a small screwdriver under hook of the extractor, force upward and

ject, not hard enough to injure it, force the cocking piece back until the safety-lock can be turned to the vertical position with right hand; insert the firing pin in the bolt and screw up the sleeve (by turning to the right) until the sleeve lock enters its notch on the bolt.

To assemble firing mechanism and bolt to bolt head.—Hold bolt in left hand, turn safety lock down with the forefinger of right hand; press on sleeve lock with thumb of right hand, turn sleeve to left, permitting firing pin



1.—TELESCOPIC SIGHT BLOCKS SET 7.2 INCHES ON CENTER, WHICH GIVE  $\frac{1}{2}$  MINUTE READINGS ON FECKER AND WINCHESTER REAR SCOPE MOUNTS. HEIGHT OF FRONT BLOCK ON BARREL IS  $\frac{7}{16}$  INCHES, AND REAR BLOCK ON RECEIVER IS  $\frac{7}{32}$  INCHES; 2.—SHOWING FIRING MECHANISM, WITH SINGLE STRIKER—THE ASSEMBLY IS QUITE LIKE THAT OF THE CALIBER .30 SPRINGFIELD; 3.—SHOWING NEW FLUSH MAGAZINE; 4.—SHOWING BOLT HEAD AND BOLT—BOLT HEAD DOES NOT ROTATE, AND FOR THAT REASON THIS MECHANISM IS IN TWO PARTS.

fired, but in any event it has been found that this figure certainly approximates this ideal in spite of the advancement made in this small cartridge. When an ammunition and series of rifles perform in such fashion that the ideal figure is just touched, once the balance of the measurements being under this figure, it indicates a uniform production which it is reasonable to assume is not entirely due to luck.

This test was undertaken in order to observe and study the uniformity of the new product now coming through the Armory, no effort being made to select especially accurate weapons, simply the regular run, so that something worth while might be gathered. It indicates uniformity in rifle and ammunition. A mean radius of 0.85 inches is considered very satisfactory and rifles and ammunition that will keep within it are considered excellent. You can draw your own conclusions.

**A** FEW words on how to dismount and assemble the bolt mechanism, which in many respects resembles the service rifle, may not be amiss.

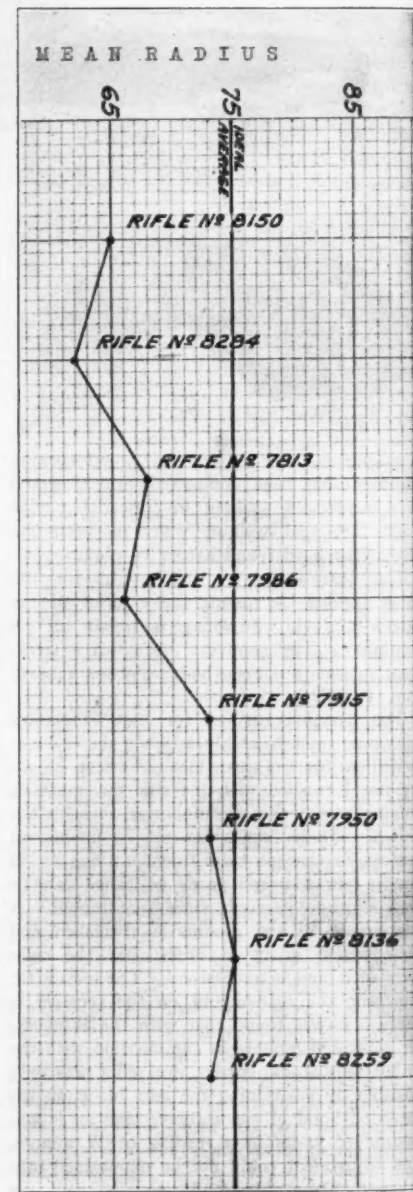
**Dismounting the bolt mechanism.**—Place the ejector stop at the lowest notch (in the Springfield cal. .30 this is known as the "cut off"); cock the arm and turn the safety lock

to the right and remove extractor from bolt head.

**To remove the sleeve.**—Hold bolt in left hand, press sleeve lock in with thumb of right hand to unlock sleeve from bolt, and unscrew sleeve by turning to the left. See Figure "B".

**To remove firing mechanism from sleeve.**—Hold sleeve between forefinger and thumb of the left hand, turn safety lock down to the left with the forefinger of the right hand, in order to allow the cocking piece to move forward in sleeve, thus partially relieving the tension of the mainspring; with the sleeve against the breast draw back the firing pin sleeve with the forefinger and thumb of the right hand and hold it in this position (see Figure "C"), while removing the striker assembly with the left hand; remove firing pin sleeve and mainspring; pull firing assembly out of the sleeve.

**To assemble the bolt mechanism.**—With the safety-lock turned down to the left to permit the firing pin assembly to enter the sleeve as far as possible, assemble the sleeve and firing pin assembly; place the bolt sleeve against the breast and put on mainspring, firing-pin sleeve, and the striker assembly (see Figure "C"). Hold the bolt sleeve between the thumb and forefinger of the left hand, and by pressing the striker against some ob-



COMPARATIVE MEAN RADIUS CHART

assembly to move forward in bolt; hold bolt head in left hand and bolt in right hand so that the ejector, latch and ejector slot in the firing pin head are in line with each other (see Figure "D"), push bolt into bolt head as far as it will go, turn bolt head to left until latch engages the latch lugs on bolt head; hold bolt in left hand, press on sleeve

lock with thumb of right hand, turn sleeve to right until the sleeve lock enters its notch in the bolt.

*To assemble extractor.*—Hold rear end of bolt mechanism in left hand with extractor slot in bolt head up; place extractor in slot; grasp front end of bolt mechanism with right hand, thumb on extractor; place end of extractor against some firm object, depress extractor with thumb of right hand and force extractor into place in the bolt head.

*To insert bolt in rifle.*—See that ejector stop (same as cut-off in caliber .30 Springfield) is at the lowest notch; hold the rifle in left hand, take bolt mechanism in right hand with locking lug up and push into receiver; lower bolt handle and turn ejector stop thumbpiece up into its seat in the receiver with right hand.

A word of caution on snapping on an empty chamber, as in "dry practice": These rifles are adjusted so that the striker will not impinge on the breech of the barrel and upset the delicate rim of the chamber. It is not wise to subject the action to this unnecessary strain. It puts a stress on the firing mechanism which is uncalled for, and although it will stand it, of course, no intelligent rifleman treats his caliber .22 target rifle in that fashion. The fellow who does this is the same sort who will race his auto engine on a cold morning in order to warm it up a bit—in both instances there is a lack of cushioning effect—in the rifle soft copper—in the auto engine a film of oil.

**I** WISH to emphasize the absolute importance of ignition. It is always important in the big rifles, but it is so positively vital in the little caliber .22 that I cannot stress it too strongly. It is very often the trouble with these rifles when they go off their shooting. It is positively uncanny to observe how readily they will respond to skilled fingers and a file or oilstone or a stiffer mainspring. The positioning of the striker is of great importance and so, too, is the form of the point. The proportion of the igniter to the charge of powder is greater in the caliber .22 rim-fire cartridge than any other of our cartridges. The blow can be so heavy that it is just short of rupturing, and it will in this adjustment give excellent results, but it must not be too light, and there you are. It varies with certain makes, and in my opinion it is here that certain rifles develop that curious fondness for certain brands only.

I believe, also, that the temper of the bullet has much to do with this curious behavior, but this is not by any means as important as correct and uniform ignition. If you think your rifle is going off its shooting, first examine very minutely the imprint of the striker on the head of a fired cartridge and if you believe you have found that this impression is not as pronounced as at first, dismount the firing mechanism and clean carefully.

If you are unable to see that this has improved matters, try another brand, all of them on the market, and if still unable to correct the trouble, send your bolt complete to the

(Continued on page 27)

## New Rifle Range Wrinkles

By Arthur D. Caswell

**T**HE last few weeks at the University of Minnesota have been full of action for the boys interested in indoor rifle shooting. Sergeant Ernest Mylke, who is in charge, has had a problem to regulate the flow of shooters in and about the gallery. In fact, he has actually had to keep the doors locked at times to prevent overcrowding the room. Are the boys interested in the shooting game? You bet! And when one looks over the group, some firing, some watching, it is difficult to tell which ones are the most interested. It takes a hardened heart to lock the surplus boys out of the gallery, but what else can the Sergeant do?

In looking over the boys firing from time to time, I wondered just how many had previously fired a rifle. Surely not many, judging from their first efforts, but they are blameless for this condition, which I feel is due entirely to boys' parents, who, in pursuit of their own pleasures, were too busy to give their sons a chance to practice this great American sport.

To Maj. Bernard Lentz, Commandant of the U. of M. R.O.T.C., falls the credit of the original enlargement of the gallery. The Major has had visions of a cadet corps trained in rifle marksmanship for some time, and now these visions are being realized in no meager form. The drill movements give the boys good, wholesome bearing, but rifle marksmanship polishes them up in a way which will ever be a valuable asset to the nation and to the boys themselves.

When one looks over the eager, yet patient, throng in the gallery, he cannot help but feel sorry for the boy who is left on the outside. To some, these pleasures are lost forever, but to others the gate is opened wide to years of happiness in the shooting game. The quiet, orderly way in which the boys conduct themselves within the gallery is remarkable, and to some it would appear unbelievable. To those who know the shooting game, it is a well-proven fact that a boy interested in this sport will keep a watchful eye on his bearing and on the condition of his body, keeping himself in good form at all times. Once interested in the gallery work, the pool hall filled with cigarette smoke will never be much of an attraction to the average boy.

The new gallery, with its seventeen well-lighted targets, is a big jump ahead of the little old one, equipped with four poorly lighted targets in a cramped little room, handicapped in every way. In spite of all these handicaps, the U. of M. has had a group of riflemen who have more than held their own in competitive matches, both team and individual. To Captain Stassen, of the rifle team, and his followers, falls another duty or obligation, namely, to assist in the instruction of the new shooters, giving them the benefit of their experience.

Now, this big change was not achieved without effort. When Major Lentz began his requests for a new range he turned over to

Lieut. M. J. Conway the task of locating suitable available space for the new gallery. This task alone kept the Lieutenant on the go for a period of two years, and during this time he was refused some four or five different locations which were vacant, but were evidently not for rifle gallery use. Each refusal meant new estimates and new plans.

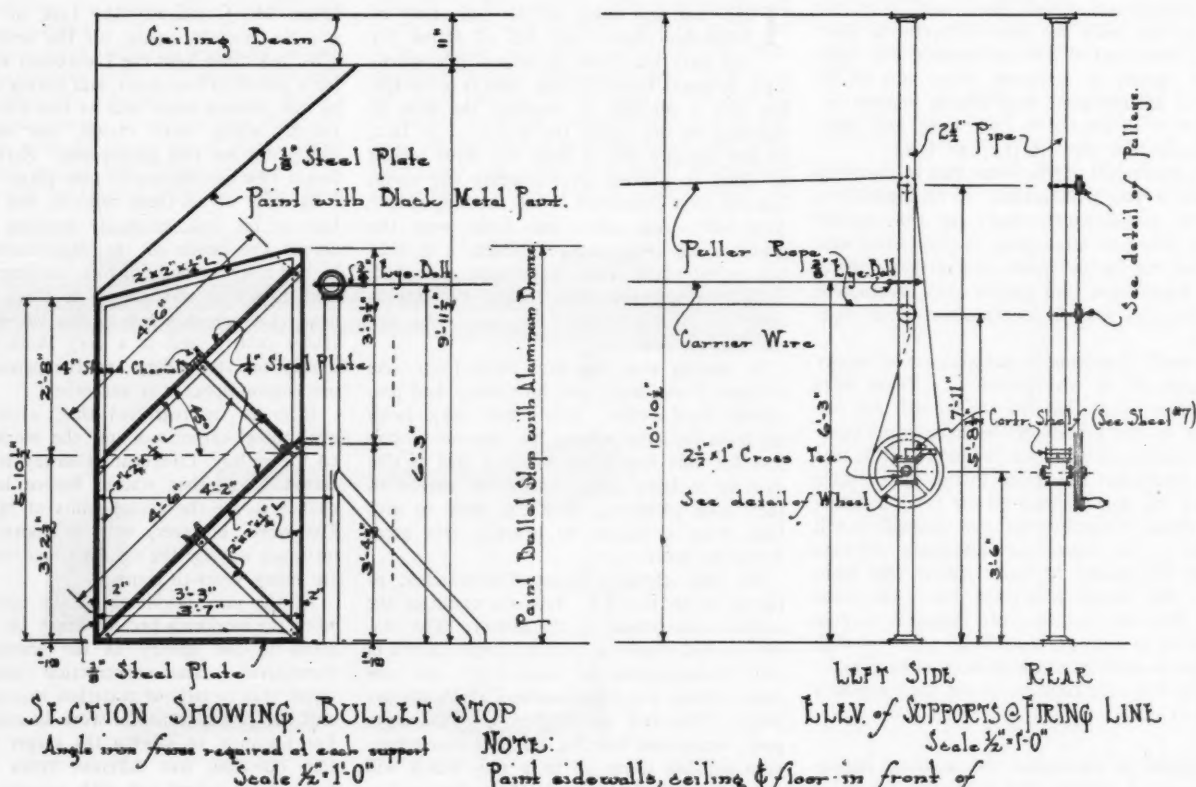
In spite of all these refusals, the Lieutenant kept at his task, gradually working his way among the heads of the departments, until he had a strong body of men backing his mission. Once it was known to them the real need of a new rifle gallery, the wheels moved rather swiftly, and in a very short time the money for the gallery and the permission to use certain space was authorized.

It is to be regretted that, after getting everything authorized and the work started on the gallery, Lieutenant Conway was transferred to another station before he had a chance to see the actual fruits of his efforts. His work, however, will be appreciated in no small way by the students and the faculty for many years to come.

At the very beginning of the construction work the workmen became every bit as interested in the gallery as the shooting fans themselves. The construction dragged at times, due to lack of materials in some cases, and due to experimental work in other cases. For instance, in solving the target illumination question, five different types of flood lights were tested out with several different types of lens. The General Electric Co. very kindly loaned us the flood lights for this experimental work, for which we are truly thankful. Mr. Reid and Mr. Kloss, of the General Electric Company, were especially watchful for our interests. Their wholehearted cooperation gave us a chance to discover what we consider the very best type of target illumination.

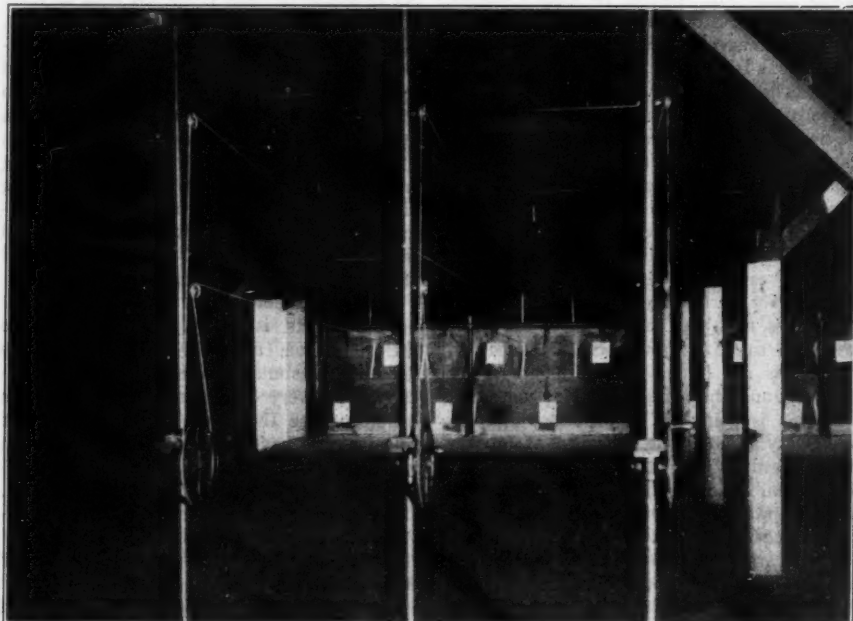
In describing the construction of the gallery, I will try to cover the equipment thoroughly. I may say at this time that with only few exceptions the entire gallery could be constructed easily and cheaply by any man familiar with ordinary pipe cutting and welding work, using standard fittings and pipe. In my plans I have endeavored to make them so clear that the more complicated work could be sent out for bids by any club desiring to let the work by contract. In many cases second-hand material can be used just as well as new material at a great saving in cost.

Our bullet stops had to be designed in a way to take up the least amount of length away from the gallery. For the main stops we used two rows of 3/4-inch steel plates, held in place, one above the other at an angle of 45 degrees with the floor, by special angle-iron frame brackets. These stops cover the gallery to a height of six feet. Above the bullet stop we have 3/4-inch steel plates, also set at an angle of 45 degrees with the floor, to deflect stray bullets. In the rear, at the side



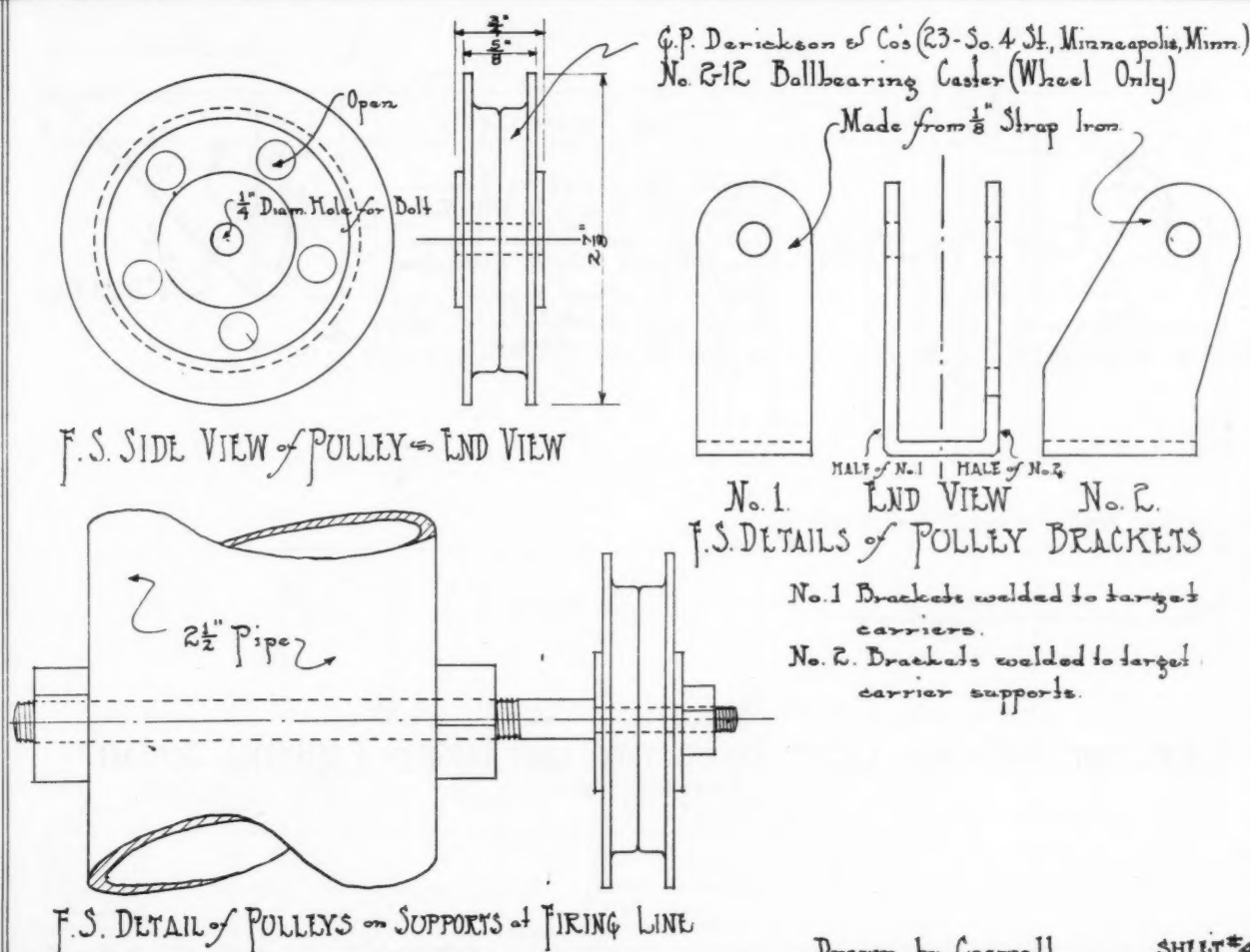
and below the bullet stops, we also have  $\frac{1}{8}$ -inch steel plates to prevent spattering lead from wearing holes in the wood walls and floor. We also expect to protect the side walls, which are of wood construction, back as far as the firing point. Money has not been authorized for this yet. The bullet stops are of sufficient weight and design to fully smash up the .45 caliber, metal case, automatic pistol bullet. Sand should be placed on the floor to prevent fragments from being thrown back to the firing point. These fragments are harmless, however, as they have lost all force at the bullet stop.

The target supports consist of  $2\frac{1}{2}$ -inch pipe uprights, spaced 9 feet apart and set in concrete, these uprights are topped with a  $2\frac{1}{2}$ -inch tee, which allows the fitting of a short length of  $2\frac{1}{2}$ -inch pipe, which is connected in turn to a  $2\frac{1}{2}$ -inch x  $1\frac{1}{2}$ -inch tee. This tee governs the spacing of the targets and should never be less than 3 feet apart. The center line of the  $2\frac{1}{2}$ -inch horizontal pipe is 6 feet, 3 inches from the floor, which also governs the height of the 10-gauge, galvanized wire trolley line. Into the target carrier support tee is screwed a short piece of  $1\frac{1}{2}$ -inch pipe perpendicular to the floor; to this a reducing elbow, and to the elbow a short length



LOOKING TOWARD THE BUTTS ON U. OF MINN. RANGE



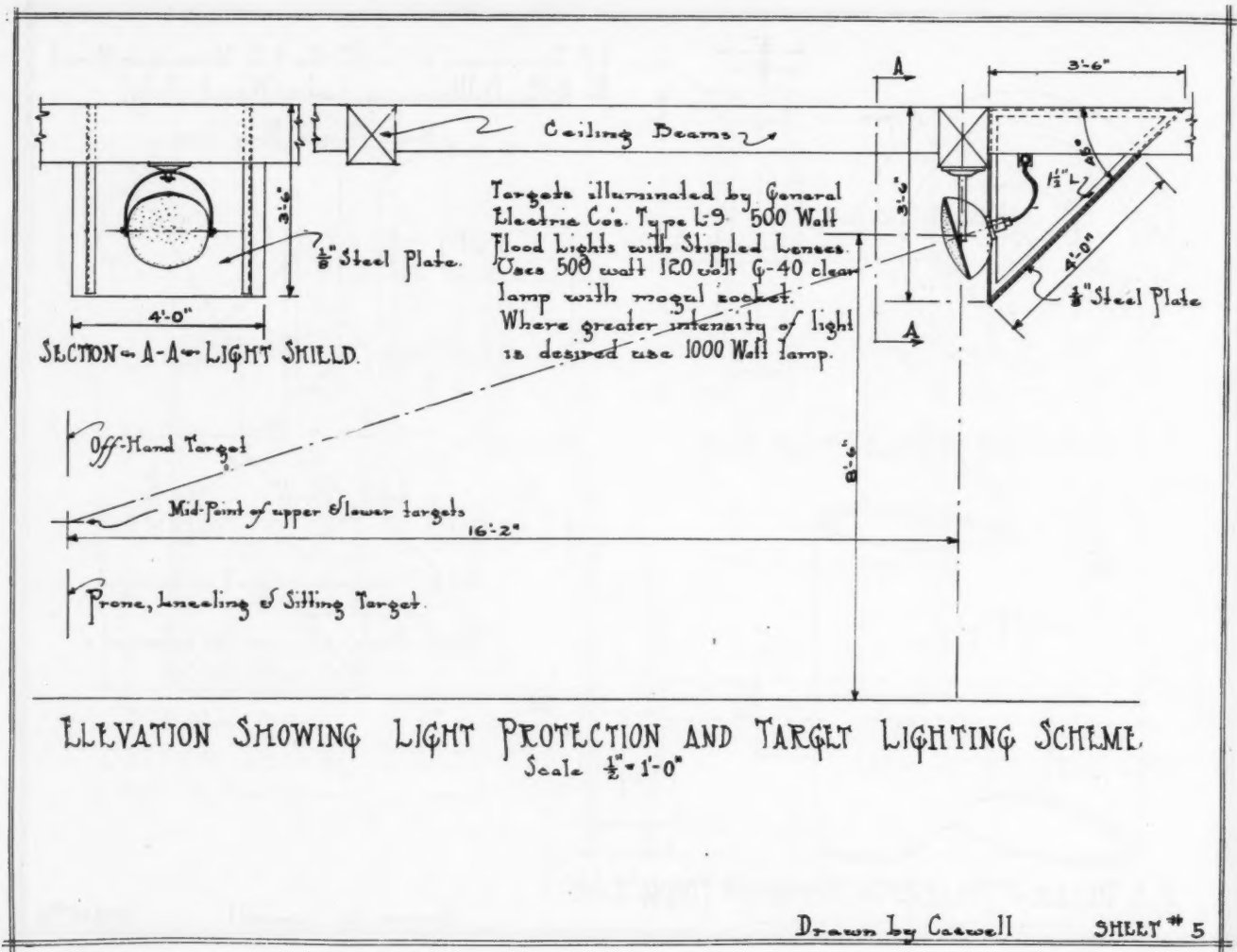


of  $\frac{3}{4}$ -inch pipe is attached, with a coupling at its end forming a socket. The last two members are reamed out smooth inside to hold a keyed pipe member of the target carrier when the carrier has the target in the firing position. The pipe and coupling has a keyway at the top which further prevents the carrier from vibrating. The inside of the target carrier support sockets is lubricated with graphite to prevent sticking. In rear of the support and elbow and support tee are ball-bearing pulleys with brackets which are welded to these members respectively. These pulleys are protected from bullets by the pipes which are in front of them. The pulleys are the same as used on the target carriers and the firing line supports.

The target carrier is also made up of pipe and pipe fittings. The upper part of the carrier consists of a  $\frac{3}{4}$ -inch tee which, by use of short  $\frac{3}{4}$ -inch nipples to which are fastened  $\frac{3}{4}$ -inch x 1-inch elbows, forms the body of the carrier. On top of these elbows are welded little strap-iron brackets to support the pulleys traveling on the trolley wire. Going back to the tee, we have a short  $\frac{3}{4}$ -inch nipple to which is attached a  $\frac{3}{4}$ -inch x  $\frac{1}{2}$ -inch tee, the nipple is perpendicular to the floor, leaving the  $\frac{1}{2}$ -inch opening in the tee toward the target supports. In this opening is fitted



THE FIRING POINTS, U. OF MINN. RANGE



a short length of  $\frac{1}{2}$ -inch pipe, and the end toward the target support side is turned down smooth and tapered slightly to insure a good fit in the target support socket. A small lug is welded to the top side of the  $\frac{1}{2}$ -inch pipe to act as a key. A small hole is drilled through the last-mentioned target carrier tee, which allows the small puller cord, propelling the target, to pass through the  $\frac{1}{2}$ -inch pipe on through the support socket to the pulleys in rear and back, completing the circuit. This cord guides the  $\frac{1}{2}$ -inch pipe into the support socket.

Into the remaining opening of the bottom tee of the target carrier is inserted a  $\frac{1}{4}$ -inch bushing. This bushing allows the  $\frac{1}{4}$ -inch pipe extensions, which regulate the target heights, to be attached. These pipe extensions are threaded at one end while the other, having an ordinary paper clip which holds the target, is bolted to it. There are two sizes of extensions, the short extension, about 4 inches long, and the long extension about 3 feet, 6 inches long. The short extension is for the offhand position and gives a height to the center of the target of 4 feet, 8 inches from the floor. The long extension is for the prone, kneeling, sitting, or squatting positions and

gives a height to the center of the target of 1 foot, 6 inches from the floor. These extensions are very easily changed at will.

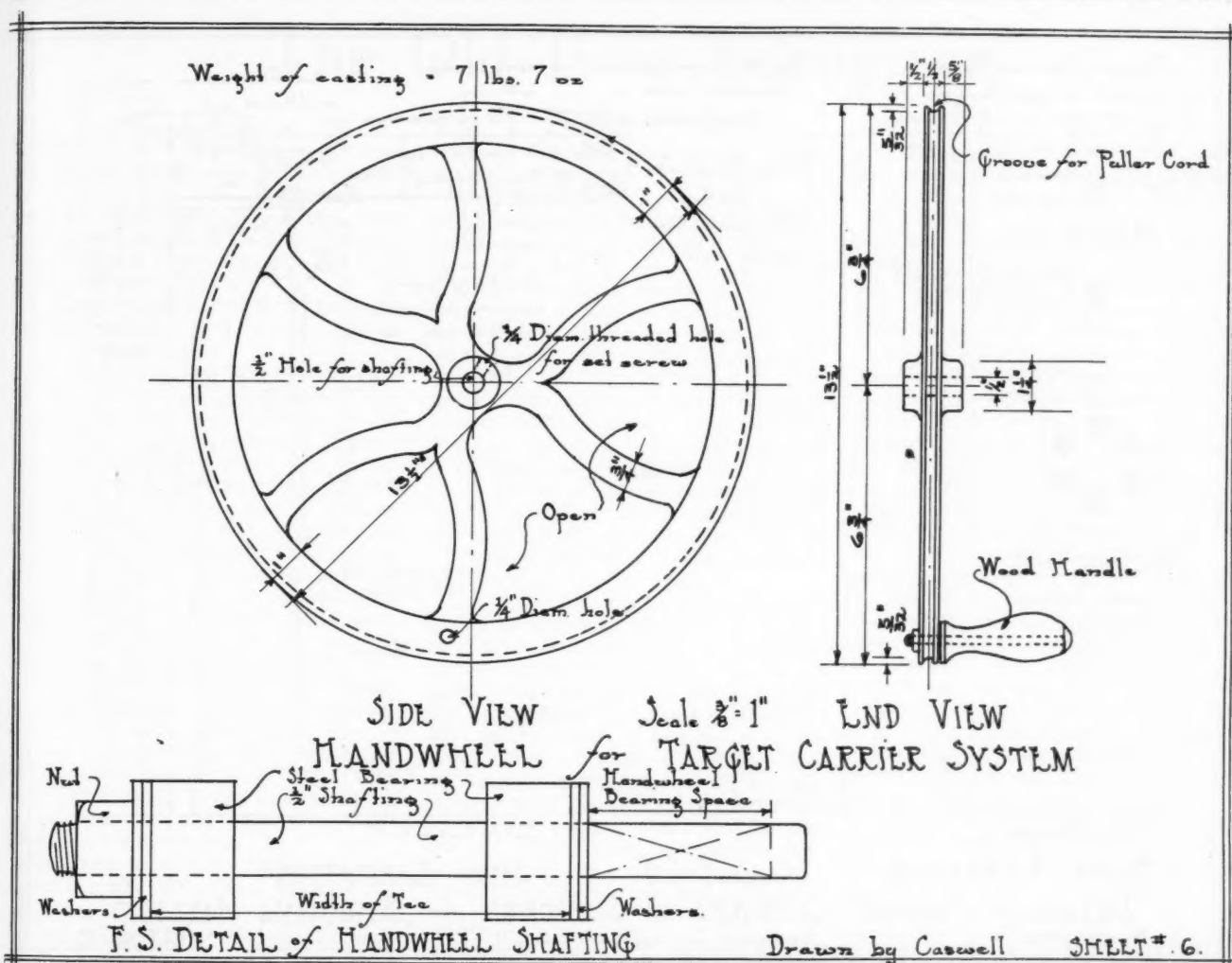
THE firing line supports are also made up of pipe and pipe fittings. Six of these supports are made up, using 2-inch pipe while the remaining eleven are made up from  $2\frac{1}{2}$ -inch pipe. The reason for this was due to the ceiling height (11 feet), which was too great for the 2-inch pipe. Several of the 2-inch pipes bent slightly, and while not sufficient to cause any harm, we decided to use the  $2\frac{1}{2}$ -inch pipe, as we had a quantity of good second-hand stock. At a height of 3 feet, 6 inches from the floor we have a cross-tee which gives a chance for very good bearings for the hand wheel which propels the target carrier. Above this is located a little wooden shelf where the shooter may rest his cartridges while firing. Above this shelf are located two pulleys at the heights of 5 feet,  $8\frac{1}{2}$  inches and 7 feet, 11 inches respectively for guiding the pulley cord. The target carrier trolley wire is fastened at the target support and the firing line upright by eye-bolts which make it a simple matter to keep the wire of sufficient tension. The carrier system

is a quiet and easily operated contrivance, which for practical purposes is free from vibration.

The mechanic, Mr. Christ Lund, did all of the important work on the supports and carrier systems, and to him the success of our carrier system is largely due.

The use of floodlights is especially desirable for the following reasons: (1) The targets at any height are correctly illuminated. This, with the help of the target extensions, allowed us to construct a gallery without being forced to use tables or to clutter up our gallery with two carrier systems. (2) Pistol or rifle may be used without changing a single feature. (3) The floodlights were very easily protected. (4) The quality and uniformity of light was very desirable. A shooter may fire on one target with the same results as on another, as far as illumination is concerned. (5) The position of the floodlights make their reflected light fully sufficient to light up the firing point and no auxiliary lights in rear of the shooters are required. (6) Their first cost for us was much less than direct lighting for each target. (7) The light reflected has no apparent glaring effect on the shooters' eyes.

In the experimental work, all types of clear



lenses proved unsatisfactory. The clear lens seems to give a glaring and very irregular light, also dark spots seemed to appear in the field. The stippled lens diffuses the light perfectly without glare and gives a wonderful light to shoot by. The intensity of this light may be varied by changing the size of the lamps from below 500 watts to 500 and 1,000 watts. Our flood lights, the General Electric Company's medium angle type, are designed for the 500-watt flood lighting lamp. The 500-watt lamp is what we intend to use regularly for instruction use. For team practice and competitive matches we use the 1,000-watt lamp, which we understand will not hold up as well as the 500-watt lamp, as it will burn out much sooner. We cannot say whether this is true or not, and to economize, are using it in these ways only. The 1,000 watt lamp costs twice as much as the 500-watt lamp.

Personally, I favor the 500-watt flood lighting lamp, and have had perfect satisfaction with it while firing the pistol. In my opinion, it is a much more difficult task to get target illumination indoors which will allow the open pistol sights to stand out clearly than it is for the peep sights of a rifle. For me, the 500-watt lamps give perfect sight lighting.

There is a danger, too, in using over-illuminated targets, and one may easily harm his eyesight without being conscious of it. Our flood lights are placed 16 feet, 2 inches from the line of targets and 8 feet, 6 inches from the floor to the center line of the light. We have five flood lights for the entire gallery. Each of these lights should be on a separate circuit if the 1,000-watt lamp is to be used.

On checking the intensity of the lighting, it was found that with the 500-watt lamp we got an average of 35 foot candles on a target, while with the 1,000-watt lamps we got over 50 foot candles per target.

Along with the lighting we have worked out the following painting scheme. The deflector plates of the bullet stop are painted with aluminum bronzing liquid. This paint reflects the light without any glare to the shooters' eyes. The deflector plate above the bullet stop is painted with black metal paint, while the sidewalls, floors, and ceilings in front of the floodlights are painted white. The white paint reflects the light toward the targets, which intensifies and aids in the uniformity of the target lighting. In no case is there any illuminated white paint exposed directly to the shooters' vision. By that I mean at right angles to the shooters' vision. Our ceiling is

so cut up with pipes and joists that we lose a great deal of light which would otherwise illuminate the targets.

The prone mats are 3 feet wide by 5 feet 6 inches long, and have handles at the short ends. They are filled with eight thicknesses of wool felt. The covering used was 8-oz. khaki awning cloth. An extra covering sheet is provided for each mat. This sheet can be laundered. The mats are light and very easily handled. It was our good fortune to get all of the wool felt free of charge, due to Lieutenant Conway's foresightedness. He located the felt long before the range was authorized, so when he learned that he could get for nothing, he lost no time in transferring it to a safe place.

In closing this article I will say that my work in connection with the estimating and all phases of the construction have been most happy to me. My work with Lieutenant Conway probably led me to see the many obstacles which he met with a clearer view than any other man, and he met a plenty. I cannot say too much for the spirit and the way in which he carried his work through. Furthermore, my work under Major Lentz fully convinced me that he has his eyes on his men in such a way as to back them and support them





# The Old-Time Schuetzen

By Emil Berge

SINCE my article a year ago, on Schuetzen shooting reminiscences appeared, an old friend of mine from Highland, Illinois, sent me a booklet, printed in German, which gave detailed account of the first tournament ever held in the United States, on July 4 and 5, 1863, at Highland, Ill.

I made several references to this early shooting tournament in the article, but wrote of it merely from hearsay.

This booklet describes the love of the Swiss for their national sport of rifle competitions in the native land. They conceived the idea of carrying on the same pastime in this, their new home, and so they issued calls, through various Swiss and German newspapers published in this country, to meet at Highland and in their midst, and in the beautiful "Lindenthal" to hold a brotherly congress, principally to establish a fraternal union of rifle shooters, and incidentally to enjoy this gathering, mid song and spiritual refreshments, as they formerly did at the big shoots at home in their native lands.

The call brought riflemen from Illinois, Missouri, Kentucky, and Indiana, numbering 106, who shot on the Honor target. This target had a 12-inch black, with rings 1 inch wide, counting from 1 to 20. The Center target had a 12-inch black with a 9-inch carton inside, and the point targets had a 12-inch black with a 4-inch carton.

There were 13,346 shots fired at the latter target, and only 500 of them hit the 4-inch center, one in every 26½ shots. Of the 106 who shot on the Honor target with a possible 60 points, 14 shooters had 40 and better scores, and 35 had 30 to 39 points. On the center target, there were 38 hits in the 9-inch bullseye carton, each firing 3 shots. No one had 3 hits, and only 3 hit the 9-inch disk

twice. The range was 580 feet, and 12 targets were provided.

Thus, you can see that, compared to present performances, this shooting match did not demonstrate very accurate marksmanship. However, it had the result of starting the Schuetzen Shooting in our United States, for this initial shoot was such a social success that it was repeated the next year. Then, in 1865, the first tournament of the American Rifle Association was held, represented by contestants from Illinois, Missouri, Wisconsin, Indiana, Ohio, Kentucky, Tennessee, New York, and Minnesota, in the same little town of Highland, Illinois. I do not have any data on the shooting at this tournament, excepting that the point target shooting showed an improvement, as out of 38,494 shots fired, the 4-inch center was hit 1,470 times, or once in 25½ shots.

The writer attended a tournament in Highland in 1879, when 20 years old, and remembers that he was the winner of the largest number of 4-inch bullseyes shot. I also remember that I had devised a new style bullet that I thought would be a winner. However, upon trial, it proved to be a failure, as the barrel became so clogged with powder fouling that many of the shots went off the target entirely. As luck would have it, I had a supply of bullets on hand that I used the next two days, which I knew had worked all right in the past, and sure enough in these two days I overtook the leaders of the first day's shooting and won the "most bullseye" prize. In 1883, I was again in attendance at Highland, this being the third tournament of the Northwestern Rifle Association.

Again I enjoyed the most delightful time in this beautiful little hamlet, and as usual, everybody outdid themselves to make this festival one of undiluted joy. At this tournament there was present a young Eastern shooter, who had won everything in sight down East. He came here and did some really fine shooting by winning the most-prized honor, to be the "King of Shooters" in 10 shots on the German Ring target.

The shooter I refer to was William Hayes of Newark. He naturally was the lion of the day, and on the occasion entered into the spirit of the festival and enjoyed himself immensely.

I remember seeing horse and buggy tracks in the Lindendale park, which led to the long stairway to the sunken plain of the shooting range. I heard that there was a wager on by a gentleman named Fred Luppinger, who owned the horses and buggy, of \$100.00, which he accepted. The contention was that he could not drive his team down those steps, which were at least 100 feet long. He evidently won his bet, as I saw both he and his companion of the perilous ride, William Hayes, later on, and the marks on the stair case plainly indicated that the bet had been carried

out. I mentioned this to show the recklessness displayed when endeavoring to indulge in what they thought was having a good time.

I remember a circumstance in a tournament held in Indianapolis, which I attended, which was held around 1888, in which I again met William Hayes. I had attained some honors as a shot, since last we met, and of which he must have had some knowledge. At least, he seemed to pick on me at this shoot, primarily as it was my good fortune to win 3 special gold medals for 3 separate matches the first day of the tournament. These were for the first 100 points, first 200 points, and first 300 points on the point targets. This required, of course, fine marksmanship, against a field of over 100 riflemen, among whom was W. Milton Farrow, then a great rival of William Hayes. Enough, when Mr. Hayes appeared at the range on the second day with a number of fine shots from the large eastern cities, he felt that his absence the first day was a lucky thing for me, and as much as intimidated this. After firing a few shots, he came to me with some of his following, and proposed a bet of a bottle of wine for each of his friends that he could score 100 bullseyes before 4 o'clock. This was nearly 10 o'clock. It took me all day from 9 to 6 o'clock the day before to make just 100 bullseyes, 4 inches in diameter, at 200 yards, off-hand. I, being alone and not wishing any further notoriety, declined to wager and admitted he could do this.

However, he insisted to press his desire to beat my score at my expense. I finally yielded, just to see the man extend himself. Mind, he used a muzzle loader, with percussion caps, and poured his powder charge down the barrel, following by raming down the bullet. Then, by prearrangement, I noticed that his pals would step aside and let him shoot just as soon as his rifle was loaded, and thus it was a steady grind of loading, entering the stand, which they relinquished when he came, and the match was on. I must say I never in all my shooting days saw such magnificent shooting. It seemed that his bullet found the 4-inch spot every time I looked to see the result. In consequence he won the wager, even with ½ or ¾ hour to spare.

This was soothing syrup for Will Hayes, and he was proud as a peacock, probably thinking what a monkey he would have made of me had he been there the day before. Well, our troubles weren't ended yet. I had fired 9 shots on my 10-shot score for the King's medal, and I refrained from firing my tenth shot, owing to a young townsman of mine, who had a score of 214 on this target and stood highest so far. My 9 shots totaled just 199, and the best I could do was 224 by my King and 25 on my last shot. As a 16 was enough to beat my friend from home, I kept an eye on the King target, to see if anyone would beat my friend, but they had

## The M-1 Caliber Springfield

(Continued from page 21)

Armory and a new striker will be fitted at nominal cost. Do not attempt to tinker with the striker, for you have not the tools, experience, or knowledge of this subject and will only make matters worse. Be sure your barrel is free of lead and that you have not injured your chamber, which in the caliber .22 long rifle is very delicate. It is best to clean always from the muzzle, for you can injure the muzzle to a considerable extent and still the grouping will be fine and compact, although it may have changed its location somewhat, but if that chamber or bullet seat is injured you are positively through with that barrel, the only remedy being to remove it, replacing with a new one or rechamber your old barrel.

Do not fire any other of the various breeds

(Continued on page 29)

nearly all shot and he was still high. Then Hayes began his score, and when he had 9 shots, his score ran 201. He then dug up his friends and they advanced upon me in a body to watch the fun they were going to have, apparently.

Hayes said to me, "Why don't you fire your last shot?"

I replied, "I probably will when I get ready," as I began to feel that they intended to humiliate me with some smart vaudeville act or something. Enough, I wouldn't stand for any more wine wagers and several other propositions, until it popped into his head to offer to bet me he could make, as his final shot, any shot I might name.

This was so evidently a ruse to trap me into something that would make the crowd laugh at me that I began to withdraw from the crowd that had gathered to see the outcome of the matter. Among them was a gambler from Kentucky, a very good shot also, named Adams, who heard the bet and began to peel off tens from a big wad; and offered to bet Hayes any amount that he could name the shot that Hayes could not make. The latter laughingly said he only bet for noble beverages, such as Rhine wines and Champagnes, and was no money hound. "Well," said Adams, "I'll bet you the drinks for the whole house I can name the shot you cannot make." "All right," said Hayes, "name your shot." Naturally, the shot named was the center, scoring 25 points. Hereupon Hayes dug down into his pocket and, picking out a 5-cent piece, said, "Here, take this nickel and treat yourself." This was more than Adams could stand, and he began rolling up his sleeves and would have gone into a crazy tail-spin, but for those around pulling the principals away from each other.

Mr. Hayes finally went into the stand, and when he fired, he shook his head as if the shot might have been unsatisfactory, yet it came up in the black, scoring a 21—making his score 222 and beating out my friend. I then shot my last shot and had the misfortune to get out of the black and score a 16. So both W. Hayes, who won the King's Medal, and I, who won second prize, were the only two who beat my townsman, who would have given his right hand if he could have been the King.

I started this article with the intention of commending the men of Highland for the immeasurable amount of pleasure they have given the great numbers of riflemen who followed the sport which the philanthropic Swiss started. It seems, to this day, that wherever I meet the Highlanders I meet with the same noble and genial fellows who, for the last some 60 years, were heart and soul enwrapped in the pastime which was so advantageous to their early ancestor, William Tell.

**I** CAN never forget the wonderful time I had in Highland during the tournament of the Central Sharpshooters' Union, held there in 1909. I was particularly happy at this tournament, as I had the rare good fortune

to be in the pink of condition as a shooter. I don't want to be considered, in relating my achievements in this tournament, as though it might be written in a spirit of conceit, but merely as showing how the gods shower blessings upon the heads of some their children. I had a few glasses of wine, such as you can only find in the beautiful Lindendale of Highland, and started to do my prize shooting.

They put up for the first time a new target called the "Highland." This was a 12-inch black with all the rings, from 1 to 25, within this black, making them measure  $\frac{1}{4}$  inch apart, the center counting 25, being  $\frac{1}{2}$  inch in diameter. The first shot I fired was well in the black, and I thought was a good start. Instead, the marker signalled only 17 points. I was sure I saw the pointer in the black, and expected a 22 or 23, so I got all "het up" over the fact that the marker showed my shot in the black but only signalled 17, so finally somebody came along and reminded me that this was no German Ring  $\frac{3}{4}$ -inch target, but the  $\frac{1}{4}$  inch. This explanation soaked in and removed the cobwebs from my troubled mind. In the black but only signalled 17, so finally This seemed pretty good to me, and I then noticed that the first prize had to be won with the best 3 cards. I bought another card and made 22-25, total 47, and upon firing the next two shots, made 24-25, a total of 49—a grand total of 136 points out of 150 on the quarter-inch rings. This won first prize.

I then started in on the people's target, also 3 best cards to win first prize. This was on the  $\frac{3}{4}$ -inch ring target, 3 shots possible 75, in which I scored 72-71-71, total 213, which again won the first prize. I finally decided to shoot my King target score, 10 shots, possible 250, and lo and behold, Dame Luck was still with me, and my score of 226 made me winner of the King's Honors. I soon after entered the Honor target, 3 shots only, possible 75, and ran up a score of 69, which was high, until a few hours before the close of the tournament, when John Moser of Highland came along with a score of 70, which put me in second place, and which suited me all right, as I felt I was hogging first prizes enough. However, this good luck of mine had no effect upon the fellow marksmen that I could not notice, and at the coronation ceremonies I invited them to a social drink all around, and all seemed to respond.

In response to calls for a few words, I related a story, which I heard had been told repeatedly, of the reason that everybody in Highland stood so high in the estimation of their guests when they entertained. It was said, "When God formed the earth from His supply of clay, and had it all done and round and smooth, He felt very satisfied with the work so well done. However, as He had a small lump of clay left in His hand, He wondered what good He could do with same. After pondering a while, He finally slapped it down right on this very spot, blessed it, and decided to name it 'Highland.'" I then added to this story that if this was true, then He probably saw another very small

chunk of clay, blew the breath of life into it, and when the time came He would plant this animated lump of mud in your midst and exclaim, "Now, then, here is the fellow who shall be, in the year 1909, your Schuetzen King."

I have since attended many shooting tournaments, but this one remains a shining star in my firmament forever. I have always regretted that all good things eventually come to an end, when I recall how all the fans stopped everything and entered the election-day matches, when the 100-shot matches were held in the East, and all the readers of the predecessors of the present AMERICAN RIFLEMAN would devour the news contained therein.

I kept these scores for about 20 years, by pasting them against the wall of my workshop, where I could look them over and wonder how such scores could be made, how Dr. Walter Hudson, Art Hubelek, Mike Dorrier, Fred Ross, H. M. Pope, Louis Buss, Louis Ittel, and many others, could, time after time, do such wonderful, consistent shooting as they did. I, and hundreds of others also, devoured the news and scores of the various 75-foot indoor gallery matches, shot in the Zettler gallery year after year. Those were the days! I frequently hear the shooters lament that these wonderful competitions have come to an end. I am doing what I can to keep the waning interest in Schuetzen shooting alive, and if possible to resurrect the sport, and hope I can arouse the boys to hold competitions as of old. The main difficulty, as I see it, is that the youth of this land is of a different mind as that of their daddies. Again, it is hard to get the arms, such as were formerly made by Marlin, who made the Ballard Match rifles, the Winchester and Stevens, who one time were right up to snuff in producing wonderful Schuetzen rifles, but they all abandoned this class of arms, so there is nothing doing as far as rifles are concerned. The only rifles left are the Military Springfield and the .22 "Long Rifle" arms, and these are not available with set triggers, nor palm rests and the various refinements, necessary for the very highest achievements in marksmanship.

THE AMERICAN RIFLEMAN has repeatedly offered me its aid in every particular, towards encouraging Schuetzen shooting, but the first thing to do must be to increase the subscriptions of THE AMERICAN RIFLEMAN at least by 1,000 enthusiasts. After this has been done, then it will become necessary for all these subscribers to indulge in fostering clubs to hold competitions, to send in shooting scores, to enumerate all the interesting things that transpired, and then slowly and little by little a vast army of Schuetzen shooters will spring up again, join associations such as the present and only active body of riflemen, the Central Sharpshooters' Union, form new Unions of rifle clubs, in the various sections of our great United States, and make Schuetzen rifles procurable, and the dreams of the sharpshooter come true.



# How Big is a Shotgun Barrel

By Frank B. Woodland

IN THE days, not so long ago, when cannon and small arms were bored smooth and fired spherical missiles, the size of the bore was governed by the weight of the ball. A sixteen-gauge shoulder-piece was drilled out to just take a lead sphere that weighed 1/16 of a pound (or exactly one ounce); a fourteen-gauge fouling-piece would, on occasion, accommodate a bullet weighing 1/14 pound. As artillery and small arms have always developed along side of each other, it is interesting to note that at this time cannon were rated, not as a bore of so many inches across, as they are today, but as fifteen pounders, thirty, and even fifty pounders according to the weight of a projectile that could be rammed home at the muzzle. The pound avoirdupois and not the inch was the standard of comparison for both small arms and artillery.

The coming of rifled barrels and conical bullets (and shells) necessitated a change, for where a spherical shot of a given weight was always the same size, a conical projectile's weight could be varied indefinitely by adding to or subtracting from its length.

The gun bore was then made a fixed number of inches (or a fraction of an inch, known as caliber), in diameter, and the projectile made to fit the gun, rather than the gun to fit the projectile.

As the old term "gauge" indicated a fraction of a pound, so our modern term "caliber" indicates a decimal fraction of an inch.

Small arms formerly fired shot or ball interchangeably, sometimes both in the same charge. I am told by an old rifleman that the regulation charge for the army musket at the beginning of the Civil War was a ball and three buckshot. The artilleryman of that day loaded his gun with grape-shot or spherical shell as the occasion demanded.

The shoulder-piece, after the introduction of the rifle, began developing along two different lines. As the shotgun did not fire a conical-shaped charge, the old designation of "gauge" was retained, even to the present day, although there is some tendency at present to rate shotguns in caliber instead of gauge, citing the .410 bore as an example.

One more thing that I would like to point out, before we turn to the subject of mathematics, is that the weight of the shot charges in our modern shotgun loads is approximately the same as a solid lead ball would weigh that would just fit the different bores, shoke not considered.

If we should ask the average user of the scatter-gun what the actual diameter of the bore of his weapon is we might get an answer something like this, "Wal, a dime'll just about drop into the end of a twelve-gauge gun."

Let us tackle the problem from a little more scientific point of view, as follows, and work it through for a twelve gauge:

One cubic foot of lead weighs 711 pounds. One pound of lead occupies 1/711 of a cubic foot.

A 12-gauge ball weighs 1/12 of a pound.

A 12-gauge ball occupies  $\frac{1}{711 \times 12}$  of a cubic foot.

The volume of a sphere equals  $4/3 \pi R^3$ .

$$\frac{4}{3} \pi R^3 = \frac{1}{711 \times 12} \text{ cu. ft., } R^3 = \frac{3}{4 \times \pi \times 711 \times 12}$$

$$R = \sqrt[3]{\frac{3}{4 \times \pi \times 711 \times 12}}$$

As we want our answer in inches, instead of feet, we will have to multiply by 12; and as we want the diameter of the bore instead of the radius we will multiply by twice this, or 24.

$$D = 24 \sqrt[3]{\frac{3}{4 \times \pi \times 711 \times 12}} = .72861 \text{ Caliber}$$

for a 12-gauge gun.

If we turn back on our problem a bit and substitute the letter G for 12, we obtain a formula that will work for any gauge.

$$D = 24 \sqrt[3]{\frac{3}{4 \times \pi \times 711 \times G}} = 1.6681 \sqrt[3]{\frac{1}{G}} = \frac{1.6681}{\sqrt[3]{G}} \text{ inches.}$$

By means of this formula I computed the bores of all standard gauges, and compared my results with the actual diameters of commercial gun barrels. Data for the latter being furnished by three of the largest manufacturers of American shotguns. It will be noticed that the commercial barrels are about .001 oversize. This originally was to enable the bullets to drop into the barrel easily. There is a slight amount of variation among the standard bore-sizes of the various manufacturers today.

| Gauge | Bore by Formula | Commercial Cylinder Bore | Muzzle Diameter Full Choke | Weight of Solid Ball |
|-------|-----------------|--------------------------|----------------------------|----------------------|
| 4     | 1.0508 inch     | ...                      | ...                        | 4 oz.                |
| 6     | .8940 "         | .895                     | ...                        | 2 oz.                |
| 10    | .7743 "         | .775                     | .789                       | 1 3/5 oz.            |
| 12    | .7286 "         | .729                     | .693                       | 1 1/3 oz.            |
| 16    | .6620 "         | .662                     | .636                       | 1 oz.                |
| 20    | .6145 "         | .615                     | .589                       | 4/5 oz.              |
| 24    | .5783 "         | ...                      | ...                        | 2/3 oz.              |
| 28    | .5493 "         | .550                     | .530                       | 4/7 oz.              |
| 36    | .5051 "         | .410                     | .395                       | 4/9 oz.              |

The solid ball cartridges put on the market today are, of course, smaller than the gauge for which they are intended, so that the ball can pass through the choke. The solid ball weights which I have listed are of the old, full-size gauge, and I have included them so that a comparison can be made with the weights of shot-charges in present-day shotgun shells.

I received a box of shells the other day which said on it, ".410 (36 gauge) (12 mm.)." If 36 is the correct gauge, then the bore is .505 caliber; or if .410 is the correct bore, then the gauge is not 36 but 66, but if 12 mm.

is the true size, the caliber is .4724. Our little friend seems to be something of a hybrid, not to use a more common but vulgar expression.

It is interesting to note that as the gauges get larger numerically the bore grows smaller. The reverse is true of the calibers. Now, there must be some point at which a shotgun of a certain gauge is exactly the same size as a rifle of a certain caliber, gauge and caliber being numerically equal in this case. Such a gauge or caliber is found in the following manner:

$$\frac{1.6681}{\sqrt[3]{G}} = \frac{100}{C}$$

C standing for caliber, but as C is equal to G

$$\frac{1.6681}{G} = \frac{G}{100}, 1.6681 \times 100 = G^3 \sqrt[3]{G},$$

$$166.81 = \sqrt[3]{G^4},$$

$$(166.81)^3 = G^4, \sqrt[4]{(166.81)^3} = 46.41 \text{ gauge.}$$

In other words, a gauge of approximately forty-six and one-half is the same size bore as forty-six and one-half caliber.

An eight-gauge shoulder-piece was once the most popular bore among elephant hunters in Africa, and fired a bullet weighing at least 875 grains. This would be gun enough for most "elephants," but there is on record one Sir Samuel Baker who went forth to hunt the Indian elephant with a veritable "Columbiad" whose gauge was two, (bore 1.324 caliber), and which fired a "shell" weighing 3,500 grains.\*

\* Townsend Whelen, "The American Rifle," p. 365. Statistics on commercial bores furnished by Winchester, Ithaca, and L. C. Smith Companies.

## The M-1 Caliber Springfield

(Continued from page 27)

of caliber .22 rim-fire cartridges through the rifle—it is chambered for one type only, the best, the .22 LONG RIFLE, and this is well to remember.

This fine rifle, latest product of Springfield Armory, is not cheap; it will cost you nearly as much as the Sporter in caliber .30, which, by the way, it so closely resembles as to make it difficult to distinguish one from the other, but it is worth every cent of the price asked. It has the hang and balance of the high-class arm it is, it has the accuracy of a match rifle of highest degree, which primarily it is, and it has the quality, material, and workmanship which means it will retain these desirable features through long years of hard service.

### PISTOL SHOOTERS!

You need Macnab's Pistol and Revolver Training Manual. Order it today from THE AMERICAN RIFLEMAN Book Department, 1108 Woodward Building, Washington, D. C.



(A Unit of the National Rifle Association devoted to teaching every boy and girl in America the safe and accurate handling of the rifle.)

Conducted by H. H. Goebel

## Rifle Shooting a Sport for Girls

**N**O LONGER do girls confine themselves to sports generally recognized as minor activities. The girl of today has a freedom which she is thoroughly enjoying, and is participating in all present-day sports, and in many of them excelling the men and boys. Among the sports which she is taking up in real earnest is that of rifle shooting. Thousands of girls in Grammar, High, and Preparatory Schools, Colleges, Camps, Y.W.C.A.'s, Camp Fire Groups, Girl Scouts, etc., are enjoying this sport which is still new to many of them, but to the majority has become a sport in which they may excel. The N.R.A.J.R.C. has done much in the past to promote the sport among girls, and at this writing there are hundreds of girls who are qualifying for individual awards.

It is fast becoming apparent that rifle practice is indeed one of the great girl sports of the country. In schools, basketball and field hockey are about the only two sports the girls have open to them. The modern girl has plenty of school spirit and is a firm supporter of the school teams, but she is no longer completely happy in the capacity of a spectator. She wants, above all things, to wear the school colors into competition with other institutions.

The idea of girls' rifle teams originated in the fact that every girl in a school, regardless of her age, physical development, or nervous temperament, could make a place for herself on the school rifle squad. The rifle used, the .22's, have no recoil, so that girls whose physique would never permit them to hope to make the basketball squad may, with the aid of a little self-discipline and careful application, win places on the varsity squad.

The eagerness with which the girls "take" to the rifle team idea is vouched for at major institutions. It is the opinion of many educators that rifle shooting makes better students, because the sport consciously and unconsciously impresses the habits of accuracy, self-discipline, self-analysis, concentration, visio-muscular coordination, and team plan.

Ever since the inception of the Junior Rifle Corps, the girls have achieved real recognition. The first Expert Rifleman was a girl, the first to win the National Mail Championship was a girl, and the first to win a shoulder-to-shoulder championship at Camp Perry was a girl.

It was interesting to us who were privi-

leged to journey through the boys' and girls' camps in the interest of rifle shooting to notice the sturdy, permanent backstops and sheltered firing points the summer camps are now erecting. Especially is this true in the girls' camps, which proves conclusively that rifle shooting has come to stay as a sport in the curriculum of the leading girls' camps of the country. Thousands of girls qualified for camps, which proves conclusively that rifle never before in the history of the camp matches were they so closely contested. Three girl teams made possible scores, and it was only by determining the numbers of "A" shots that a true standing of the teams with the winners could be announced.

The N.R.A.J.R.C., although primarily a boy organization, is now well represented by the girls, who are very happy competing for qualifications and in matches on the same basis.

Rifle shooting is truly a wonderful sport.

### THE VALUE OF COMPETITION

**B**EFORE the indoor season gets much further along, the question of competition should again be given some mention. Are you satisfied with the record that you have made in your shooting? Will you stop at Pro-Marksman or Marksman when you know that you can, if you will work, become a Sharpshooter or an Expert? Will you be satisfied to let your Unit or Club remain in a half-hearted condition, or will you help make it the best Unit or Club in your community, State, or even the Nation?

The opportunity is given your Unit to compete in the Inter-Unit Trophy Matches, run on a handicap system with respect to the "possible" shooting score of your team. Are you going to take the attitude, "Oh, we have no chance," or will you try?

It is the great desire of National Headquarters that every Unit should enter at least one of these matches before the contest closes and get a taste of real competition. It is not impossible to carry off a championship, as proven by the Evanston Township High School Rifle Team of Evanston, Illinois, Unit No. 389 of Chicago, Illinois, and Unit No. 1,947 at the East Orange High School, East Orange, N. J.

We would greatly appreciate any suggestions that you can give National Headquarters

as to how we can make the matches more interesting and more effective.

Please remember that this is your organization and that if everyone will determine that he will try to advance at least one step along, our organization will move forward. But if you wait for National Headquarters, your instructor, or some other member to start you, then you will retard not only your own progress but the progress of our whole organization.

Therefore, let us resolve that we will go after the medals, that we will enter the matches, and that we will make it possible for every boy and girl in America to have the pleasure and benefits which we are enjoying through the N.R.A. Junior Rifle Corps.

\* \* \*

### DO YOU WANT THE NEWS?

Then Notify National Headquarters!

**W**E HAVE made it a policy to send the *News* regularly on the 15th of each month to every member of the Corps who has qualified in the medal course as Marksman or better.

If you have reaffiliated, either as an individual or Club member, and have qualified as a Marksman, write us immediately, so that your name will be carried over to the active plate list for the regular mailing of the *News*.

No member of the Corps will receive future issues of the *News* unless he or she is in good standing. If you have not reaffiliated but want your *News*, send us your individual affiliation fee of 25 cents, or see to it that your Unit or Club submits its reorganized Club application.

It is impossible for us to wade through the thousands of applications that have automatically been placed in good standing through the affiliation or reaffiliation of numerous clubs, and we must rely upon your cooperation in letting us know just who you are that want the *News*.

\* \* \*

### NO SOONER SAID THAN DONE

**N**O SOONER did we have the January *News* in the mails, when requests came pouring in from all corners of the States asking for supplies of Junior Rifle Corps individual applications. That is most certainly the Junior Rifle Corps spirit, for so long as we continue with an enrollment of this type our organization is sure to grow and we are bound to advance.

"Amateur Gunsmithing," by Lt.-Col. Townsend Whelen, and "Pistol and Revolver Training Course," by Col. A. J. McNab, a \$2.50 value, are yours for 50 cents, if you will bring into the Association ten individual members at 25 cents each. In addition, we are offering to the first ten members who bring in their quota of ten members, as an additional incentive, an original pen-and-ink sketch of the cover page of *THE AMERICAN RIFLEMAN*. It is not too late to carry off one of these extras. If you have not already written for your application, do so immediately, thus serving and helping your organization as well as yourself.



### EAST ORANGE WINS DECEMBER MATCH

THE high school rifle team at the East Orange, New Jersey, high school was the winner of the December Junior Rifle Corps Monthly Match. The outfit from Orange, shooting true to form, hang up a team total score of 824. The "possible" had previously been set at 825.

Although the number of entries in the match is far below the point of making the competition a real success, it is interesting to note that the entry list each month continues to increase as the match gets under way. Fourteen teams completed the December Match, while nine, for various reasons, were unable to get their targets back. In the November Competition only ten clubs shot.

It is sincerely hoped that the match will continue to grow in popularity and that the J.R.C. Monthly Inter-Unit Competition may soon be looked upon as a truly National match for the Juniors affiliated as clubs of the Junior Rifle Corps. Let's have at least fifty teams entered in the February event. Official scores, each club, for the December Match follow:

#### OFFICIAL BULLETIN, N.R.A.—J.R.C. MATCH FOR DECEMBER

|                                                                      | Score | Possible |
|----------------------------------------------------------------------|-------|----------|
| 1. East Orange High School, East Orange, N. J. . . . .               | 824   | 825      |
| 2. Fresno High School, Fresno, Calif. . . . .                        | 950   | 948      |
| 3. Wilby High School, Waterbury, Conn. . . . .                       | 850   | 846      |
| 4. Evanston Township High School, Evanston, Ill. . . . .             | 948   | 955      |
| 5. Northwestern High School, Detroit, Michigan . . . . .             | 933   | 941      |
| 6. Hyde Park "Y," Chicago, Ill. . . . .                              | 841   | 850      |
| 7. Lewis-Clark High School, Seattle, Wash. . . . .                   | 867   | 879      |
| 8. Crestline Y.M.C.A., Crestline, Ohio . . . . .                     | 833   | 848      |
| 9. Grover Cleveland High School, Team No. 1, St. Louis, Mo. . . . .  | 901   | 920      |
| 10. Leavenworth High School, Waterbury, Conn. . . . .                | 853   | 875      |
| 11. Crosby High School, Waterbury, Conn. . . . .                     | 898   | 920      |
| 12. Grover Cleveland High School, Team No. 2, St. Louis, Mo. . . . . | 874   | 900      |
| 13. Irving Park Rifle Club, Chicago, Ill. . . . .                    | 905   | 1,000    |
| 14. Unit 562, Fall River, Mass. . . . .                              | 478   | 1,000    |

#### UNABLE TO FIRE

Unit 349, Oak Park, Illinois.  
Irving Park Team No. 2, Chicago, Illinois.  
Unit 2654, Newtonville, Massachusetts.

#### NOT REPORTED

Unit 2,634, Arlington, N. J.  
Unit 2,750, Hartford, Conn.  
Unit 2,843, Wilmington, Dela.  
Unit 892, Boston, Mass.  
St. Paul's Rifle Club, N. Y. C.  
Unit 669, Bronx, New York.

### DAVENPORT USES VISIBLE SCORING METHOD

UNIT No. 327, affiliated with the Davenport High School of Davenport, Iowa, is made up almost entirely of new members. Something was needed to stimulate the interest and to put pep into things. Edward C. Ditzen, President of the Club, has worked out a system of scoring which has helped Unit No. 327, and the information is passed on to our many readers with the hope that it will also help them.

Four sheets of paper were arranged with the names of the members in a vertical column, and after each name is placed a series of squares. The sheets are ruled in four different columns so that the four positions

can easily be distinguished. The sheet for prone is necessarily the larger.

When a member has finished shooting for the evening, he scores his targets in ink and hands them to the secretary. The members do this because, for lack of time, it is impossible for the official scorer to do all the scoring. In this way there are no mistakes, as the targets have already been scored in ink and cannot be changed before they are forwarded on to National Headquarters. Furthermore, all targets that are not kept for credit are destroyed. The members all realize that this is the only fair way in which the system can be managed and they are all for it. The scores on each of the targets are added up and each position separately divided by the number of targets shot in that position and the average recorded in the proper place. All targets are used; good and bad alike.

In addition to the above-mentioned record that is kept on file, there is a large chart on the wall which serves the same purpose. The system used with the chart is not entirely accurate because only one average is recorded for each member that shoots. In the same square with the score is placed a letter indicating the position: 4—four positions; n—kneeling; S—standing; s—sitting; p—prone. All of this can, of course, be improved on—it is in the preliminary stage. At first glance the plan employing the chart seems to give the fellow who shoots prone the advantage—the scores are usually higher, and the letters indicating the position do not show up so well. The following changes might be advantageous: The positions could be recorded separately, but on the same chart using different color marking pencils to prevent confusion. This plan, however, has a drawback in that it requires too much wall space. For the charts are used either newspaper stock or wrapping paper.

Before the system was actually in practice it was doubtful as to what the results would be. They have worked out to be entirely satisfactory and helpful. In the future, when the question comes up, "Who are our best shots?" there is no guess work about it. You not only know who are the best shots, but also in what positions they excel. This arrangement of scores has been helpful in determining just who are the members that are to enter the matches. There is one thing that surpasses the usefulness of the plan and that is the spirit which it instills into the members. The system has been in force for a very short time, but in that time it has created a new competitive spirit between the

members of the club, and better scores are looked for in the future, not only better scores but also a re-awakening of the interest that there once was and that should be in any school.

You have read what Instructor Ditzen has done for the boys of Davenport, and there is every reason to believe that a plan such as outlined would work advantageously in every club. It is recommended that this plan, or some similar to it, be inaugurated in order to give the members an insight as to the actual ability of each of the members in their club and to create competitive sportsmanship by and between the members.

\* \* \*

The good work started at the Crestline P.R.R.Y.M.C.A. by former Instructor E. M. Farris is being carried on with renewed enthusiasm by Instructor C. L. Klahn. The unit has reaffiliated and is active in the complete program of of Junior Rifle Corps. Instructor Farris is now located at Portsmouth, Ohio, and will soon have a club registered in our shooting fraternity.

\* \* \*

The Lane Technical High School of Chicago, Ill., has its shooting program pretty well under way. Lt. Col. E. S. Pearsall, Instructor in charge, submitted individual targets qualifying for thirty-three medal awards. The members are competing constantly for individual qualifications and will soon be represented as a team in the match events.

\* \* \*

Rev. Wendall Allen has organized a rifle club at the Mount Rainier M. E. Church, Mt. Rainier, Md. The boys are highly enthusiastic over the sport and are going right after those medals. Several members have purchased rifles, from the N. R. A. Service Company, taking advantage of the reduced rates on equipment to affiliated clubs.







Conducted by C. B. Lister

## Police, Bankers and Pistol Shooters, Note:

THE annual report of one of our active rifle clubs contains the following comment, which is of interest to all club secretaries, as indicative of a field in which they can do a good work. The item should also be of interest to police, bankers, and pistol officials, pointing to them the value of cooperating with their local civilian clubs. This report was not submitted by a rifle shooting fanatic, but by a responsible official in a bank which has been established for more than half a century:

"Your request for a report of the activities of the Cherokee Rifle Club received. A few explanations are necessary to make such a report intelligible. The club is very closely connected with the Cherokee Vigilantes. The club range officer is also county chief of Vigilantes. When the Vigilantes and all club officers happen to be Vigilantes. When the Vigilantes were organized in Cherokee, the bankers who selected the Vigilantes were members of the Rifle Club, and they naturally picked the best shots in the Rifle Club. The last two years the Cherokee banks have paid the dues of all the Vigilantes who either wanted to practice or could be persuaded to. Several efforts have been made to get the other towns in the country to adopt the same plan, but without much success. The County Bankers' Association offered cash prizes in 1925 and 1926 to Vigilantes who were members of the Rifle Club, and banks offered to pay the dues of all Vigilantes who wanted to compete. There was very little interest shown outside of Cherokee. The banks are boosting the Rifle Club as the best training for the Vigilantes. All shooting Vigilantes are members of the Rifle Club, but all club members are not Vigilantes.

We began the winter of 1925-26 by changing our indoor range to a new location where we could shoot revolvers as well as rifles. We shot twice a week most of the winter, one night with .22 rifles, and the other with revolvers. We used mostly .45's, though there were a few .38's, and one .22. One man used a Luger. When he stepped up to the firing line we all ducked and plugged our ears. That gun couldn't have made more noise if it had been loaded with chedite or TNT—a .45 Colt was mild in comparison. As soon as we were sure that the indoor pistol practice would be a success, we invited in the local police (three men), railroad police, and post office employees. If the post office employees throughout the country can't shoot any better than the samples we saw, it is no wonder that they had to call out the marines to guard the

mail. The police were a little worse than the post office men, and after watching them shoot we took some of the targets they had missed to the city council and talked them into buying sawed-off shotguns for the police. Then we talked the night men into carrying them from about midnight till daylight. At the same time we got the county Board of Supervisors to buy two sawed-offs for the sheriff's office—not enough, but a damn sight better than none. The railroad dicks were the worst of all—they couldn't even stay on a 4-foot by 4-foot back-stop. Their alibi was, "I haven't shot this gun for six months." We purposely made the range easy (a five-inch bull at 15 yards), so that the poor shots would be encouraged by a good score, but when some of the Vigilantes began to 10, or 12, or 17, and once 30 straight bulls, we decided our range was too easy. We closed the indoor season with plenty of interest in both rifle and pistol, and considerable improvement in shooting with both. We found that the Vigilantes who were members of the Rifle Club were much better pistol shots than the police or post office employees, and they also showed more improvement with practice.

We entered a team of Vigilantes Rifle Club members in the N.R.A. outdoors postal police pistol team match, and just missed getting skunked. We took seventh place, with eight teams firing.

We started the outdoor rifle season as soon as the postal match was over. The County Bankers' Association offered cash prizes for the highest score of those who qualified as Expert, Sharpshooter, and Marksman, one prize for each class. This divided the men into three classes according to their ability to shoot and gave the poorer shots a chance.

We entered a team of Vigilantes Rifle Club members in the Iowa Bankers' Association match at Fort Des Moines, and as a preliminary we held two matches with the Storm Lake Rifle Club, shooting the I.B.A. Course. The first match was at Storm Lake, and we only shot rifles. We won 1,274 to 1,262. The second match at Cherokee we shot both rifles and pistols and won 4,058 to 3,830.

This I.B.A. course is a very queerly constructed affair and needs considerable fixing. The easiest way would be to junk it and adopt the Army dismounted pistol qualification course and one of the rifle qualification courses, "A" preferred. It would make a better balanced match, and Vigilantes who are members of the N.R.A. or affiliated rifle

clubs could qualify on their records made at Ft. Des Moines.

We can not give a complete report of the I.B.A. match, as the standing of the county teams is not yet definitely settled, but as a team we were either first or second (depending on final decision), and members of the team won fourth and seventh prizes in the pistol match, and eighth prize in the rifle match. Another member of the team finished inside the money in the pistol match, but was barred from the prizes as he had won cash prizes in both pistol and rifle the year before.

Our outdoor season ended when the ducks began to fly, and our indoor season has just started. We have improved our range and we are expecting a big season, both with rifles and pistols.

### UNIVERSITY RIFLEMEN DEFEAT CIVILIAN CLUB

By CAPT. J. J. CAUGHLAN

THE University of Missouri Rifle Team fired a shoulder-to-shoulder match with the Jefferson City Rifle Club at Jefferson City, Mo., on Dec. 11, 1926. The match was a four-position match, one shot on each target, standard N.R.A. targets for fifty feet. Very favorable publicity was given this match by the Jefferson City *Daily Capital*. The reception and entertainment given the University team by the Jefferson City club was fine in every detail. After the match a banquet was tendered the University team by the Jefferson City Rifle Club at the Central Hotel, Gen. F. M. Rumbold, Adjutant-General of the State of Missouri, was honor guest and made the principal address of the evening. He stressed the support of the National Rifle Association and commended both organizations for their interest in rifle marksmanship. General Rumbold has followed the shooting game for a period of fifty years. He is a life member of the National Rifle Association, and is donor of the famous Rumbold Trophy that is given to the Service Regimental Team winner at the National Matches at Camp Perry, Ohio. He is also Vice-President of the National Rifle Association of America. The match between the two teams will become an annual affair. In the spring of 1927 the Missouri University team will fire an outdoor match with the Jefferson City Rifle Club.

#### THE RESULTS OF THE MATCHES

| University of Missouri |       |         |         |        |       |
|------------------------|-------|---------|---------|--------|-------|
|                        | Prone | Sitting | Kneel'g | St'd'g | Total |
| Beal, E. C. ....       | 49    | 49      | 46      | 47     | 191   |
| Wescott, C. M. ....    | 49    | 47      | 50      | 43     | 189   |
| Luther, C. A. ....     | 50    | 48      | 46      | 44     | 188   |
| Curry, J. M. ....      | 50    | 49      | 46      | 43     | 188   |
| Winston, W. C. ....    | 48    | 46      | 50      | 44     | 188   |
| Totals. ....           | 246   | 239     | 238     | 221    | 944   |

| Jefferson City Rifle Club |       |         |         |        |       |
|---------------------------|-------|---------|---------|--------|-------|
|                           | Prone | Sitting | Kneel'g | St'd'g | Total |
| Davison, J. W. ....       | 46    | 42      | 47      | 37     | 172   |
| Sullivan. ....            | 44    | 44      | 48      | 32     | 172   |
| Halstrom. ....            | 43    | 40      | 47      | 42     | 172   |
| Dittbrenner. ....         | 48    | 46      | 45      | 27     | 166   |
| Torrence. ....            | 48    | 47      | 42      | 17     | 154   |
| Totals. ....              | 229   | 219     | 229     | 155    | 834   |

Missouri University won the match by 110 points.

## NEW HIGH SCORES SEEN AS GALLERY MATCHES CLOSE

OFFICIAL Bulletins of N.R.A. Gallery Matches now closing show some mighty good scores which were rung up in practically all the postal competitions of the 1926-27 Gallery Program. C. A. Hassinger of Ashland, Ohio, gets credit for winning the Individual Sitting Match at 50 feet, also the distinction of being the only competitor in that match with a "possible." Hassinger had 36 x's to go with his possible. In the 75-foot section of the Individual Sitting, Joe Wilson from out at Sapulpa, Oklahoma, nosed out "Brother Bruce" with a possible 400, Mr. Bruce having drooped one point over the course. Both Wilsons used the Winchester .52 and 5\*a scope plus Palma.

Iowa and Illinois capture the honors in the Kneeling Match, Mr. A. K. Friedrich of Ames topping the list of Section "A" competitors, while Mr. E. H. La Rue, who hails from Chicago, nosed out Wilson in firing the longer range of the Kneeling Event. This fellow La Rue, incidentally, is a tyro. And tyros don't always lose their status by winning a match like this. Mr. La Rue might be heard from some more. Both shooters used the "Winchester Combination," namely: Model 52, and

although La Rue shot his strings through a 5\*a scope, Mr. Friedrich looked through his Stevens. The 50-foot Standing Match was closely contested, the Altman Brothers and Mr. Friedrich, all of Iowa, being tied for first honors. Mike Altman, however, outranked the two and is given first place. In the 75-foot Off-hand Match, Henry C. Wright at Fresno, Calif., was the victor with his high score of 392. Both winners shot Winchester 52's, but the sights and ammunition credit is divided between Fecker-Stevens, Palma, and U.S.N.R.A.

The Tyro Championship Section "A" Match was won by Kenneth S. Van Trump at Oak Park, Ill., with a total score of 592. Van Trump shot a Remington rifle and Winchester ammunition. Mr. D. C. Golden, shooting a Springfield with Palma, was high in the 75-foot Tyro Championship. His score was 576. Clyde S. Marinus of Iowa, another tyro in the pistol world, eased through the Slow-Fire Pistol Match successfully, while Harry C. Williams from the Pacific Coast won the Rapid-Fire Pistol Event with a fairly comfortable margin. Mr. Marinus fired a S. & W. using Palma, and Mr. Williams used a Colt Auto with U.S.N.R.A. Official scores of each match as completed follow:

### INDIVIDUAL SITTING MATCH AT 50 FEET

| Name                                  | Address | Score   | Rifle     | Sight     | Ammunition |
|---------------------------------------|---------|---------|-----------|-----------|------------|
| C. A. Hassinger, Ashland, Ohio        |         | 400-36x | No record | No record | No record  |
| Emmett Swanson, Minneapolis, Minn.    |         | 399-34x | Win. 52   | Iron      | Prec. 200  |
| Harry E. Brill, Tulsa, Okla.          |         | 399-31x | Win. 52   | Win. 5-A  | Palma      |
| W. P. Dunbar, Culver, Indiana         |         | 399-29x | Spring.   | Iron      | Peters     |
| Same Moore, Ithaca, N. Y.             |         | 398-29x | Win. 52   | Fecker    | Prec. 75   |
| M. I. Robinson, Los Angeles, Calif.   |         | 398-27x | Spring.   | Iron      | Palma      |
| A. K. Friedrich, Ames, Iowa           |         | 398-27x | Win. 52   | Fecker    | Prec. 200  |
| T. K. Lee, Birmingham, Ala.           |         | 397-30x | Win. 52   | Fecker    | Peters     |
| Jim Bell, Sapulpa, Okla.              |         | 397-26x | Win. 52   | Win. 5-A  | Palma      |
| Bruce Wilson, Sapulpa, Okla.          |         | 397-26x | Win. 52   | Win. 5-A  | Palma      |
| C. D. Wild, Janesville, Iowa          |         | 396     | Spring.   | Win. 5-A  | Prec. 75   |
| G. A. Campbell, Tulsa, Okla.          |         | 396     | Win. 52   | Win. 5-A  | Palma      |
| Richard Dunlap, Sapulpa, Okla.        |         | 396     | Spring.   | Win. 5-A  | Palma      |
| H. T. Noyes, New York City, N. Y.     |         | 395     | Win. 52   | Iron      | U.S.N.R.A. |
| Morton Solomon, New York City, N. Y.  |         | 395     | Win. 52   | Iron      | U.S.N.R.A. |
| Joe Wilson, Sapulpa, Okla.            |         | 394     | Win. 52   | Win. 5-A  | Palma      |
| H. W. Daniel, Sapulpa, Okla.          |         | 393     | Win. 52   | Win. 5-A  | Palma      |
| V. J. Hadin, Schenectady, N. Y.       |         | 393     | Win. 52   | Fecker    | Prec. 200  |
| L. O. Moore, New Cumberland, Ohio     |         | 393     | Win. 52   | Stevens   | Palma      |
| L. P. Clubine, Aurora, Iowa           |         | 393     | Win. 52   | Iron      | Palma      |
| H. C. Duke, Richmond, Ohio            |         | 391     | Stevens   | Stevens   | Prec. 75   |
| A. A. Taylor, Brooklyn, N. Y.         |         | 391     | Win. 52   | Win. 5-A  | Prec. 200  |
| John I. Cahalan, New York City, N. Y. |         | 391     | Win. 52   | Win. 5-A  | U.S.N.R.A. |
| W. Anderson, Gearhart, Oregon         |         | 390     | Win. 52   | Win. 5-A  | U.S.N.R.A. |
| Martin O'Connor, Racine, Wis.         |         | 389     | Savage    | Win. 5-A  | Prec. 75   |
| A. Marriott, Richmond, Ohio           |         | 389     | Win. 52   | Win. 5-A  | Prec. 75   |
| C. E. Sayre, Norfolk, Nebraska        |         | 387     | Stevens   | Fecker    | U.S.N.R.A. |
| A. B. Sprague, Worcester, Mass.       |         | 386     | Win. 52   | Stevens   | Prec. 75   |
| W. R. O'Neill, Steubenville, Ohio     |         | 384     | Win. 52   | Fecker    | Prec. 200  |
| Eldridge Adams, San Antonio, Texas    |         | 383     | Stevens   | Fecker    | Prec. 200  |
| G. A. Hughes, Youngstown, Ohio        |         | 382     | Win. 52   | Iron      | Prec. 200  |
| M. M. Works, San Antonio, Texas       |         | 381     | Spring.   | Fecker    | Prec. 200  |
| Wm. McNamee, Jacksonville, Fla.       |         | 374     | Win. 52   | Win. 5-A  | U.S.N.R.A. |
| W. G. Jones, Jacksonville, Fla.       |         | 374     | Spring.   | Iron      | Palma      |
| Jim Barlow, Halstead, Kansas          |         | 371     | Ball-Pet. | Beld-Mull | U.S.N.R.A. |
| L. P. Krebiel, Halstead, Kansas       |         | 368     | Win. 52   | Win. 5-A  | U.S.N.R.A. |
| M. Sykale, Tucson, Arizona            |         | 368     | E. S. A.  | Stevens   | Peters     |
| A. E. Hertler, Halstead, Kansas       |         | 363     | Hoff-Ball | Fecker    | U.S.N.R.A. |
| Ivan Whiting, Plymouth, Wis.          |         | 362     | Win. 52   | Stevens   | Prec. 75   |
| Sam J. Mansfield, Tucson, Arizona     |         | 360     | Win. 52   | Stevens   | Peters     |
| J. O. Norcross, Worcester, Mass.      |         | 327     | Spring.   | Fecker    | U.S.N.R.A. |

### UNABLE TO FIRE

Frank L. Yorlan, Tarrytown, New York

### NOT REPORTED

George L. Cutting, Worcester, Mass.  
Frank Riley, Richmond, Ohio  
Thomas G. Sager, Newburgh, New York  
C. H. Wilson, Ortega, Florida

W. B. Pape, Boston, Mass.  
J. P. Brooks, Richmond, Ohio  
Edgar T. Strange, Hershey, Pa.  
Eric Johnson, Ardmore, Oklahoma

### INDIVIDUAL SITTING MATCH AT 75 FEET

| Name                             | Address | Score | Rifle       | Sight    | Ammunition |
|----------------------------------|---------|-------|-------------|----------|------------|
| Joe Wilson, Sapulpa, Oklahoma    |         | 400   | Win. 52     | Win. 5-A | Palma      |
| Bruce Wilson, Sapulpa, Oklahoma  |         | 399   | Win. 52     | Win. 5-A | Palma      |
| Sam Moore, Ithaca, New York      |         | 396   | Win. 52     | Fecker   | Prec. 75   |
| H. H. Jacobs, Dayton, Ohio       |         | 395   | Pet-Ballard | Fecker   | Peters     |
| W. M. Hire, Castalia, Ohio       |         | 395   | Spring.     | Win. 5-A | Prec. 75   |
| F. D. Wheeler, Chicago, Ill.     |         | 393   | Stevens     | Win. 5-A | Peters     |
| James R. Satava, Cleveland, Ohio |         | 393   | Win. 52     | Win. 5-A | No record  |
| Loren M. Felt, Chicago, Illinois |         | 393   | Win. 52     | Fecker   | U.S.N.R.A. |
| Fred Johansen, Joliet, Ill.      |         | 392   | Win. 52     | Win. 5-A | U.S.N.R.A. |
| T. L. Albee, LaGrange, Ill.      |         | 391   | Win. 52     | Win. 5-A | Prec. 75   |

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## THE IMPORTANCE OF MARKSMANSHIP IN THE NATIONAL GUARD

By CAPT. WALTER A. COWAN,

A SOLDIER, as defined in the dictionary, is "one of an organized body of combatants," and the word "combatant" means "one who fights." The necessity for discipline and efficient administration is fundamental to the existence of the organized body, but perfection in the business of maintaining the organization is but the means to an end. To use a legal expression, it is adjective and not substantive to the main purpose, which is to train men to fight. Due partly to the strain on the organization machinery caused by the laziness and ineptitude of the few whose disregard for their administrative duties makes life a burden for others, and partly, perhaps, to the failure of organization commanders to fully realize its dangerous significance, there has crept into the National Guard a tendency to minimize the importance of combat training in time of peace, particularly that essential branch of combat training which has to do with rifle and pistol marksmanship. From the viewpoint of the enlisted man and the future of the National Guard, this tendency is all wrong, because it robs the National Guard of that which is most attractive to capable and patriotic young men to whom inclusion on the company pay roll is but an incident.

What prompts a self respecting youth to take the oath which binds him to attend a drill every week and to spend his annual vacations in military camps for a period of three years? It is the response of his natural love for weapons and a desire to participate in the romance that from time immemorial has accompanied the profession of arms. In ancient and medieval times every soldier aspired to be a good swordsman. In modern times every soldier longs to be an expert shot, regardless of his branch of the service or the particular duty which he performs as a cog in the military machine. The only citizen whose sole military experience has been that of an enlisted man in the National Guard, who looks back with pride and satisfaction on his period of service, is the man who went into the National Guard and there learned to shoot.

In the opinion of the average person, in or out of the service, a soldier who can't shoot is like a prize fighter who can't box or a life guard who can't swim. The morale of a private soldier very largely depends on his confidence in his ability to do his duty at that supreme moment when it is every man for himself and his rifle is his best friend. Only by persistent training in the use of his weapons can that ability and confidence be acquired.

In many States there is little opportunity for practice with service ammunition during the winter months, but in every community where a National Guard unit is located, facilities can be provided somehow for the installation of a small-gallery range. Even without a range, the unit commander who puts his

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## INDIVIDUAL SITTING MATCH AT 75 FEET—Cont.

(Continued from page 33)

| Name                                        | Address | Score | Rifle        | Sight     | Ammunition  |
|---------------------------------------------|---------|-------|--------------|-----------|-------------|
| A. U. Abbott, Seaside, Oregon.....          |         | 390   | Win. 52      | Win. 5-A  | U.S.N.R.A.  |
| F. W. Williams, Dayton, Ohio.....           |         | 390   | Win. 52      | Win. 5-A  | Prec. 200   |
| Harold Hubele, St. Louis, Missouri.....     |         | 389   | Win.         | Fecker    | U.S.N.R.A.  |
| P. T. Clapp, Brattleboro, Vermont.....      |         | 389   | Stevens      | No record | Prec. 75    |
| H. A. Weymouth, Salt Lake City, Utah.....   |         | 388   | Win. 52      | Fecker    | Prec. 75    |
| Paul W. Lahme, Boston, Mass.....            |         | 388   | Win. 52      | Iron      | U.S. & Win. |
| L. A. Pope, Los Angeles, Calif.....         |         | 388   | Spring.      | Fecker    | Palma       |
| Martin O'Connor, Racine, Wis.....           |         | 388   | Savage       | Win. 5-A  | Prec. 75    |
| Orien Royce, Seaside, Oregon.....           |         | 386   | Win. 52      | Win. 5-A  | Prec. 75    |
| Carl A. DuNah, Pasadena, Calif.....         |         | 385   | Win. 52      | Fecker    | U.S.N.R.A.  |
| William H. Schultz, Cleveland, Ohio.....    |         | 384   | Win. 52      | Iron      | U.S.N.R.A.  |
| George Titherington, Stockton, Calif.....   |         | 383   | Tith-Stevens | Fecker    | No record   |
| Arthur S. Dempie, Seaside, Oregon.....      |         | 382   | Win. 52      | Win. 5-A  | U.S.N.R.A.  |
| Earle A. Barnard, Brattleboro, Vermont..... |         | 382   | Stevens      | Stevens   | Prec. 75    |
| B. G. Betke, Boston, Mass.....              |         | 381   | Win. 52      | Iron      | Prec.       |
| A. P. Danforth, Arlington, Mass.....        |         | 379   | Win. 52      | Fecker    | Prec. 75    |
| Ira L. Wade, Boston, Mass.....              |         | 379   | Win. 52      | Iron      | U.S.N.R.A.  |
| Clarence L. Lind, Boston, Mass.....         |         | 377   | Win. 52      | Iron      | U.S.N.R.A.  |
| Giacomo Bonaglia, Boston, Mass.....         |         | 375   | Win. 52      | Iron      | U.S. & Win. |
| A. B. Jordan, Brattleboro, Vermont.....     |         | 371   | Stevens      | Stevens   | Prec. 75    |
| O. H. Wheeler, Boston, Mass.....            |         | 369   | Win. 52      | Iron      | U.S.N.R.A.  |
| Delmas L. Ford, Boston, Mass.....           |         | 365   | Win. 52      | Iron      | U.S.N.R.A.  |
| Henry J. Collins, Boston, Mass.....         |         | 364   | Win. 52      | Iron      | U.S.N.R.A.  |
| William H. Gould, West Toledo, Ohio.....    |         | 363   | Win. 52      | Iron      | Prec. 200   |
| C. M. Stockman, Bedford, Ohio.....          |         | 359   | Win. 52      | No record | Palma       |
| Sam J. Mansfield, Tucson, Arizona.....      |         | 352   | Win. 52      | Stevens   | Peters      |
| Alan A. Taylor, Brooklyn, New York.....     |         | 349   | Spring.      | Fecker    | U.S.N.R.A.  |
| Wallace L. Darling, Boston, Mass.....       |         | 349   | Spring.      | Fecker    | U.S.N.R.A.  |
| M. Sykalle, Tucson, Arizona.....            |         | 347   | M. S. A.     | Stevens   | Peters      |
| Cecil O. LaMoria, Boston, Mass.....         |         | 338   | Win. 52      | Iron      | U.S.N.R.A.  |

## NOT REPORTED

|                                        |                                   |
|----------------------------------------|-----------------------------------|
| B. A. Courtright, Wilkes-Barre, Penna. | F. P. Studholme, Portland, Oregon |
| Eric Johnson, Ardmore, Oklahoma        | S. C. Williams, Oakland, Calif.   |
| F. W. Parker, Jr., Chicago, Ill.       |                                   |

## INDIVIDUAL KNEELING MATCH AT 50 FEET

| Name                                      | Address | Score   | Rifle      | Sight      | Ammunition |
|-------------------------------------------|---------|---------|------------|------------|------------|
| A. K. Friedrich, Ames, Iowa.....          |         | 397     | Win. 52    | Fecker     | Prec. 75   |
| Sam Moore, Ithaca, New York.....          |         | 394     | Win. 52    | Fecker     | Prec. 75   |
| Emmett Swanson, Minneapolis, Minn.....    |         | 394     | Win. 52    | Iron       | Prec. 200  |
| M. E. Kaiser, Sacramento, Calif.....      |         | 392     | Pet-Ball.  | Stevens    | U.S.N.R.A. |
| Morton Solomon, New York City.....        |         | 391     | Win. 52    | Iron       | U.S.N.R.A. |
| Harry E. Brill, Tulsa, Okla.....          |         | 391     | Win. 52    | Win. 5-A   | Palma      |
| Bruce Wilson, Sapulpa, Okla.....          |         | 390     | Win. 52    | Win. 5-A   | Palma      |
| Haydon T. Noyes, New York City.....       |         | 390     | Win. 52    | Win. 5-A   | U.S.N.R.A. |
| J. L. Steffan, Vancouver, Wash.....       |         | 389     | Savage     | Stevens    | Palma      |
| Richard Dunlap, Sapulpa, Okla.....        |         | 387-10x | Spring.    | Win. 5-A   | Palma      |
| L. W. Griffith, Independence, Iowa.....   |         | 387-1-8 | Win. 52    | B. & M.    | Palma      |
| R. A. Dickson, Vancouver, Wash.....       |         | 385     | Win. 52    | Win. 5-A   | Prec. 75   |
| G. L. Cutting, Worcester, Mass.....       |         | 385     | B. S. A.   | Gerrish    | Prec. 75   |
| C. E. Sayre, Norfolk, Nebraska.....       |         | 385     | Stevens    | Fecker     | U.S.N.R.A. |
| H. C. Duke, Richmond, Ohio.....           |         | 385     | Stevens    | Stevens    | Prec. 75   |
| G. A. Campbell, Tulsa, Okla.....          |         | 383     | Win. 52    | Win. 5-A   | Palma      |
| H. C. Williams, Monterey Park, Calif..... |         | 382     | Spring.    | Win. 5-A   | U.S.N.R.A. |
| E. M. Farris, Portsmouth, Ohio.....       |         | 376     | Win. 52    | Win. 5-A   | Peters     |
| A. B. Sprague, Worcester, Mass.....       |         | 374     | Win. 52    | Stevens    | Prec. 75   |
| C. D. Wild, Janesville, Iowa.....         |         | 373     | Spring.    | Win. 5-A   | Prec. 75   |
| V. J. Hadin, Schenectady, N. Y.....       |         | 371     | Win. 52    | Fecker     | Prec. 200  |
| Angus McKinnon, Calumet, Mich.....        |         | 370     | Win. 52    | Iron       | U.S.N.R.A. |
| J. O. Norcross, Worcester, Mass.....      |         | 369     | Spring.    | Fecker     | U.S.N.R.A. |
| W. G. Jones, Jacksonville, Fla.....       |         | 361     | Spring.    | Iron       | Palma      |
| W. P. Dunbar, Culver, Indiana.....        |         | 361     | Spring.    | Iron       | Peters     |
| John I. Cahalan, New York City.....       |         | 361     | Win. 52    | Win. 5-A   | U.S.N.R.A. |
| Ivan Whiting, Plymouth, Wis.....          |         | 356     | Win. 52    | Stevens    | Peters     |
| A. E. Hertler, Hilstead, Kansas.....      |         | 348     | Hoff-Ball. | U.S.N.R.A. |            |
| Jim Barlow, Hilstead, Kansas.....         |         | 341     | Pet-Ball.  | B. & M.    | U.S.N.R.A. |
| A. T. Strange, Hershey, Penna.....        |         | 302     | Win. 52    | Iron       | U.S.N.R.A. |

## NOT REPORTED

|                                   |                                      |
|-----------------------------------|--------------------------------------|
| W. R. O'Neill, Steubenville, Ohio | F. Wilkerson, Gastonia, N. Car.      |
| W. B. Pope, Boston, Mass.         | C. W. Nevius, Neola, Iowa            |
| R. L. Albrook, Aurora, Iowa       | Joe Wilson, Sapulpa, Oklahoma        |
| C. H. Wilson, Ortega, Florida     | William Eberwine, Sacramento, Calif. |
| John G. Moore, Norfolk, Nebraska  |                                      |

## INDIVIDUAL KNEELING MATCH AT 75 FEET

| Name                                      | Address | Score   | Rifle      | Sight     | Ammunition |
|-------------------------------------------|---------|---------|------------|-----------|------------|
| E. H. La Rue, Chicago, Illinois.....      |         | 392-17x | Win. 52    | Win. 5-A  | Prec. 75   |
| Bruce Wilson, Sapulpa, Oklahoma.....      |         | 392-2-8 | Win. 52    | Win. 5-A  | Palma      |
| Sam Moore, Ithaca, New York.....          |         | 391     | Win. 52    | Fecker    | Prec. 75   |
| H. H. Jacobs, Dayton, Ohio.....           |         | 391     | Pet-Ball.  | Fecker    | Prec. 75   |
| P. T. Clapp, Brattleboro, Vermont.....    |         | 390     | Stevens    | No record | Prec. 75   |
| Frank L. Frohm, Wilkes-Barre, Penna.....  |         | 388     | Spring.    | Fecker    | U.S.N.R.A. |
| William H. Schultz, Cleveland, Ohio.....  |         | 385     | Win. 52    | Fecker    | Peters     |
| Harry Frohm, Wilkes-Barre, Penna.....     |         | 384     | Spring.    | Fecker    | U.S.N.R.A. |
| Fred Johansen, Joliet, Illinois.....      |         | 379     | Win. 52    | Win. 5-A  | Palma      |
| James R. Satava, Cleveland, Ohio.....     |         | 378     | Win. 52    | Fecker    | Prec. 75   |
| H. A. Weymouth, Salt Lake City, Utah..... |         | 376     | Win. 52    | Fecker    | Prec. 75   |
| L. A. Pope, Los Angeles, Calif.....       |         | 374     | Spring.    | Fecker    | Palma      |
| A. U. Abbott, Seaside, Oregon.....        |         | 372     | Win. 52    | Win. 5-A  | U.S.N.R.A. |
| G. M. Upshaw, Whittier, Calif.....        |         | 370     | Win. 52    | Win. 5-A  | Palma      |
| A. E. Barnard, Brattleboro, Vermont.....  |         | 369     | Stevens    | Stevens   | Prec. 75   |
| I. S. Wade, Boston, Mass.....             |         | 369     | Win. 52    | Iron      | Prec. 75   |
| T. T. McClure, Santa Monica, Calif.....   |         | 369     | Noid-Ball. | Fecker    | Western    |
| A. S. Dempie, Seaside, Oregon.....        |         | 366     | Win. 52    | Win. 5-A  | U.S.N.R.A. |
| A. B. Jordan, Brattleboro, Vt.....        |         | 360     | Stevens    | Stevens   | Prec. 75   |
| B. G. Betke, Boston, Mass.....            |         | 360     | Win. 52    | Stevens   | Prec. 75   |
| F. C. Reimers, Paulina, Iowa.....         |         | 360     | B. S. A.   | No record | Peters     |
| H. J. Colings, Boston, Mass.....          |         | 356     | Win. 52    | Iron      | Prec. 75   |
| D. L. Ford, Boston, Mass.....             |         | 349     | Win. 52    | Iron      | Prec. 75   |
| G. Bonaglia, Boston, Mass.....            |         | 339     | Win. 52    | Iron      | Prec. 75   |
| C. L. Lind, Boston, Mass.....             |         | 339     | Win. 52    | Iron      | Prec. 75   |
| O. H. Wheeler, Boston, Mass.....          |         | 337     | Win. 52    | Iron      | Prec. 75   |
| P. W. Lahme, Boston, Mass.....            |         | 333     | Win. 52    | Iron      | Prec. 75   |
| C. O. LaMoria, Boston, Mass.....          |         | 297     | Win. 52    | Iron      | Prec. 75   |

## UNABLE TO FIRE

Wallace L. Darling, Boston, Mass.

## NOT REPORTED

|                                        |                                     |
|----------------------------------------|-------------------------------------|
| Harold Hubele, St. Louis, Mo.          | William H. Gould, West Toledo, Ohio |
| S. C. Williams, Oakland, Calif.        | F. P. Standholme, Portland, Oregon  |
| E. N. Moor, Jr., San Francisco, Calif. | A. P. Danforth, Arlington, Mass.    |
| Francis W. Parker, Jr., Chicago, Ill.  | Loren M. Felt, Chicago, Ill.        |

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## THE IMPORTANCE OF MARKSMANSHIP IN THE NATIONAL GUARD

(Continued from page 33)

men through the preparatory exercises which are prescribed in Rifle and Pistol Marksmanship will be well repaid in practical results. Shooting is simply a mechanical operation which anyone with average health and physique who is able to thread a needle can learn to do well. The most important item is to press the trigger in such a way as to release the hammer or striker without affecting the aim. The best way to perfect the trigger squeeze is by incessant practice with an empty gun or with arms using .22 caliber ammunition.

The thing above all others that will make the National Guard more attractive to the right class of men is greater attention to marksmanship. Rest periods during drill, which are usually spent in idleness or in playing games designed for recreation, might be employed more profitably with the men stretched on the floor toughening their elbows and learning how to flip the Springfield bolt in rapid fire.

There are isolated instances of improvement in the shooting done in the National Guard during the past two years, but on the whole the efforts of those who are striving to better conditions in this respect have been met with altogether too much indifference. The fault may be partly due to the fact that many National Guard officers know nothing about marksmanship, and seem to affect pride in such ignorance. Skill with small arms may have little to do with efficient administration or with brilliance in solving problems of strategy and paper tactics, but it would be a healthy sign if more National Guard officers took pride in qualifying each year with the rifle or the pistol. In every organization there ought to be at least one officer who makes marksmanship his hobby. If this officer possesses any qualities of leadership at all his organization will never lack desirable recruits.

The time has come when those in authority who have the welfare of the National Guard at heart must wake up to the fact that thorough training of the various units in the handling of their respective weapons is the fundamental, substantive basis of all that makes the National Guard attractive or of really practical use. Other training, so far as the enlisted men are concerned, is but incidental to the main object, which is to teach each citizen soldier to feel that he possesses the mental and physical equipment of a real fighting member of his country's military machine.

\* \* \*

## NEW FEDERAL BIRD REFUGE

A NEW Federal bird reservation, to be known as the Columbia River Bird Refuge, has been created by President Coolidge on two small islands in the Columbia River, at the mouth of the Walla Walla River, Wash., comprising together about eight and a quarter acres of land.



## TRYOUTS FOR INTERNATIONAL TEAM

ALL members of the N.R.A., and in fact all citizens of the United States are advised that the Secretary of War has made it possible through the corps area commanders that ranges in all parts of the United States will be available for the use of those who wish to try out for the International Team. In addition, letters have been sent to the Adjutants General requesting that they make National Guard ranges available also. With this cooperation, it is the belief of this office that every man who wishes to try out for the team will have ample opportunity to do so.

It is believed ranges will be available at the following places:

|                     |                  |
|---------------------|------------------|
| 1st Corps Area—     | Fort Sheridan    |
| Camp Devens         | Camp Custer      |
| 2nd Corps Area—     | 7th Corps Area—  |
| Fort du Pont        | Fort Snelling    |
| Fort Niagara        | Fort Omaha       |
| 3rd Corps Area—     | Fort Des Moines  |
| Camp Meade          | 8th Corps Area—  |
| Fort Eustis         | Fort Sam Houston |
| 4th Corps Area—     | Fort Logan       |
| Fort Screven        | 9th Corps Area—  |
| 5th Corps Area—     | Fort Barry       |
| Camp Knox           | Fort Missoula    |
| Fort Hayes          | Fort Lawton      |
| Fort Benj. Harrison | Fort Douglas     |
| 6th Corps Area—     | Fort Rosecrans   |
|                     | Camp Lewis       |

In addition to the above, it is expected the State ranges, wherever located, will also be available. Should any one desire information respecting the location of State ranges, they should communicate direct with the Adjutant General of the State concerned. If any difficulty is experienced, either with the Corps Area Commander or the State Adjutant General, please communicate direct with this office.

The conditions are as outlined below:

## ELIGIBILITY—

Open to any citizen of the United States.

## RANGE—

300 yards.

## TARGETS—

International 300 meter, as issued.

## RIFLE—

Any.

## SIGHTS—

Any metallic.

## SLING—

May be used.

## AMMUNITION—

Any.

## POSITIONS—

Standing—Upright, body supported only by the two legs. Palm rest is permitted.

Kneeling—A cushion is permitted under the leg on condition that foot and knee touch the ground.

Prone—Body extended on the ground, head towards target. No portion of the arms below the elbows shall rest upon the ground or any artificial support.

## COURSE OF FIRE—

10 shots prone, 20 shots kneeling, 30 shots standing. 5 a.s. in each position may be taken if desired.

## SCORING—

The marking disc will be used in the usual manner to score any value prone 2 to 5. To score higher values display the disc, i. e., to make a "6" show the red disc, then the black and white immediately. To score a "10," show the white disc twice, a "9" the white and red, etc.

## REPORTS—

Loose-leaf score sheets will be furnished the officer in charge of each tryout. These score sheets should be used in the conventional manner, plotting each shot fired by a competitor. In addition, a consolidated report should be rendered to the Executive Officer, National Board for the Promotion of Rifle Practice, Room 1635, Tempo Building No. 5, 20th and B Sts., N. W., Washington, D. C., showing each competitor's name, rank, and home address, his score for each string of ten shots, the exact type of rifle used and the kind of ammunition and sighting equip-

(Continued from page 34)

## INDIVIDUAL STANDING MATCH AT 50 FEET

| Name                                  | Address | Score   | Rifle     | Sight    | Ammunition |
|---------------------------------------|---------|---------|-----------|----------|------------|
| Mike Altman, Luverne, Iowa            |         | 389-1-8 | Win. 52   | Stevens  | Palma      |
| A. K. Friedrich, Ames, Iowa           |         | 389-2-8 | Win. 52   | Fecker   | Prec. 75   |
| Nick Altman, Luverne, Iowa            |         | 389-1-6 | Ballard   | Fecker   | Federal    |
| John Altman, Luverne, Iowa            |         | 385     | Win. 52   | Stevens  | Federal    |
| M. E. Kaiser, Sacramento, Calif.      |         | 379     | Pet-Ball. | Stevens  | U.S.N.R.A. |
| Richard Dunlap, Sapulpa, Okla.        |         | 375     | Spring.   | Win. 5-A | Palma      |
| Haydon T. Noyes, New York City        |         | 373     | Win. 52   | Iron     | U.S.N.R.A. |
| C. T. Norton, Ames, Iowa              |         | 372     | Savage    | Win. 5-A | Peters     |
| Hubert S. Miller, Cincinnati, Ohio    |         | 369     | Spring.   | Iron     | Peters     |
| L. B. Weymouth, Stanford, Calif.      |         | 368     | Win. 52   | Iron     | U.S.N.R.A. |
| Walton Anderson, Gearhart, Oregon     |         | 367     | Win. 52   | Win. 5-A | U.S.N.R.A. |
| H. C. Williams, Monterey Park, Calif. |         | 366     | Spring.   | Win. 5-A | U.S.N.R.A. |
| W. A. Schwarz, Vancouver, Wash.       |         | 365     | Win. 52   | Fecker   | Western    |
| William McNamee, Jacksonville, Fla.   |         | 363     | Win. 52   | Iron     | U.S.N.R.A. |
| Harry E. Brill, Tulsa, Okla.          |         | 363     | Win. 52   | Win. 5-A | Palma      |
| A. B. Sprague, Worcester, Mass.       |         | 362     | Win. 52   | Stevens  | Prec. 75   |
| F. R. Wheatland, Pasadena, Calif.     |         | 362     | Spring.   | Iron     | Peters     |
| Morton Solomon, New York City         |         | 359     | Win. 52   | Iron     | U.S.N.R.A. |
| H. H. Chedester, Bentleyville, Pa.    |         | 354     | Win. 52   | Fecker   | Prec. 75   |
| G. A. Campbell, Tulsa, Okla.          |         | 353     | Win. 52   | Win. 5-A | Palma      |
| C. D. Wild, Janesville, Iowa          |         | 351     | Spring.   | Win. 5-A | Prec. 75   |
| H. C. Duke, Richwood, Ohio            |         | 350     | Stevens   | Stevens  | Prec. 75   |
| E. M. Farris, Portsmouth, Ohio        |         | 342     | Win. 52   | Win. 5-A | U.S.N.R.A. |
| W. P. Dunbar, Culver, Indiana         |         | 336     | Spring.   | Iron     | Peters     |
| C. H. Kleist, St. Louis, Mo.          |         | 334     | Win. 52   | Win. 5-A | Prec. 75   |
| D. Comptell, Halstead, Kansas         |         | 327     | Win. 52   | Win. 5-A | U.S.N.R.A. |
| J. C. Norcross, Worcester, Mass.      |         | 326     | Spring.   | Fecker   | U.S.N.R.A. |
| W. G. Jones, Jacksonville, Fla.       |         | 323     | Spring.   | Iron     | Palma      |
| A. E. Hartzler, Halstead, Kansas      |         | 294     | Ballard   | Zeiss    | U.S.N.R.A. |
| Jim Barlow, Halstead, Kansas          |         | 278     | Pet-Ball. | B. & M.  | U.S.N.R.A. |
| Edgar T. Strange, Horshey, Pa.        |         | 254     | Win. 52   | Win. 5-A | U.S.N.R.A. |

## NOT REPORTED

|                                     |                                      |
|-------------------------------------|--------------------------------------|
| Sam Moore, Ithaca, New York         | W. B. Pape, Boston, Mass.            |
| Thomas G. Sager, Newburgh, New York | C. H. Wilson, Ortega, Fla.           |
| C. W. Nevius, Neola, Iowa           | Ward W. Golden, Greencastle, Ind.    |
| Emmett Swanson, Minneapolis, Minn.  | William Eberwine, Sacramento, Calif. |
| Eric Johnson, Ardmore, Oklahoma     | Arthur Strode, Vancouver, Washington |
| Frank Yoran, Tarrytown, New York    |                                      |

## INDIVIDUAL STANDING MATCH AT 75 FEET

| Name                                | Address | Score | Rifle         | Sight     | Ammunition     |
|-------------------------------------|---------|-------|---------------|-----------|----------------|
| Henry C. Wright, Fresno, Calif.     |         | 392   | Win. 52       | Fecker    | U. S. N. R. A. |
| Nick Altman, Luverne, Iowa          |         | 385   | Schoyon-Ball. | Fecker    | Federal        |
| Mike Altman, Luverne, Iowa          |         | 380   | Win. 52       | Stevens   | Palma          |
| A. K. Friedrich, Ames, Iowa         |         | 377   | Win. 52       | Stevens   | Prec. 200      |
| C. E. Nordhus, Highland Park, Ill.  |         | 377   | B. S. A.      | Win. 5-A  | Peters         |
| Harry Frohm, Wilkes-Barre, Pa.      |         | 375   | Spring.       | Fecker    | U.S.N.R.A.     |
| S. C. Williams, Oakland, Calif.     |         | 375   | Win. 52       | Win. 5-A  | Palma          |
| R. B. Greig, Oak Park, Illinois     |         | 375   | Win. 52       | Win. 5-A  | Prec. 75       |
| John Altman, Luverne, Iowa          |         | 375   | Win. 52       | Stevens   | Federal        |
| E. H. La Rue, Chicago, Ill.         |         | 373   | Win. 52       | Win. 5-A  | Prec. 75       |
| Frank L. Frohm, Wilkes-Barre, Pa.   |         | 372   | Spring.       | Fecker    | U.S.N.R.A.     |
| James R. Satava, Cleveland, Ohio    |         | 371   | Stevens       | Fecker    | Peters         |
| Loren M. Felt, Chicago, Ill.        |         | 368   | Win. 52       | Fecker    | U.S.N.R.A.     |
| Hubert S. Miller, Cincinnati, Ohio  |         | 366   | Spring.       | Iron      | Peters         |
| Joseph B. Currier, Glendale, Calif. |         | 364   | Spring.       | Win. 5-A  | Palma          |
| J. E. Greer, Alston, Mass.          |         | 361   | Spring.       | Siddle    | U.S.N.R.A.     |
| Sheldon, Nor Venice, Ohio           |         | 356   | Win. 52       | Iron      | Prec. 75       |
| G. M. Upshaw, Whittier, Calif.      |         | 351   | Win. 52       | Iron      | Palma          |
| Orlen Rouce, Seaside, Oregon        |         | 350   | Win. 52       | Win. 5-A  | Prec. 75       |
| F. W. Williams, Dayton, Ohio        |         | 348   | Win. 52       | Win. 5-A  | Prec. 200      |
| Fred Johanson, Joliet, Ill.         |         | 346   | Win. 52       | Win. 5-A  | Palma          |
| B. G. Betke, Boston, Mass.          |         | 345   | Win. 52       | Iron      | Prec. 75       |
| Arthur S. Dempsey, Seaside, Oregon  |         | 343   | Win. 52       | Win. 5-A  | U.S.N.R.A.     |
| I. S. Wade, Boston, Mass.           |         | 342   | Win. 52       | Iron      | Prec. 75       |
| H. J. Collins, Boston, Mass.        |         | 341   | Win. 52       | Iron      | Prec. 75       |
| Sydney Hall, St. Louis, Mo.         |         | 341   | Win. 52       | No record | U.S.N.R.A.     |
| Weige Johnson, Joliet, Ill.         |         | 339   | Win. 52       | Win. 5-A  | U.S.N.R.A.     |
| H. Kleist, St. Louis, Mo.           |         | 339   | Win. 52       | Win. 5-A  | Prec. 75       |
| Moswell L. Skeen, Lakewood, Ohio    |         | 339   | No record     | No record | No record      |
| A. U. Abbott, Seaside, Oregon       |         | 335   | Win. 52       | Win. 5-A  | U.S.N.R.A.     |
| Everett O. Loring, Chicago, Ill.    |         | 335   | Win. 52       | No record | No record      |
| P. W. Lahme, Boston, Mass.          |         | 333   | Win. 52       | Iron      | Prec. 75       |
| O. H. Wheeler, Boston, Mass.        |         | 331   | Win. 52       | Iron      | Prec. 75       |
| William H. Schultz, Cleveland, Ohio |         | 328   | Win. 52       | Fecker    | Prec. 75       |
| D. L. Ford, Boston, Mass.           |         | 316   | Win. 52       | Iron      | Prec. 75       |
| G. Bonaglia, Boston, Mass.          |         | 297   | Win. 52       | Iron      | Prec. 75       |
| C. L. Lind, Boston, Mass.           |         | 291   | Win. 52       | Iron      | Prec. 75       |
| C. O. La Moria, Boston, Mass.       |         | 201   | Win. 52       | Iron      | Prec. 75       |

## UNABLE TO FIRE

Wallace L. Darling, Boston, Mass.

Pearl T. Clapp, Brattleboro, Vt.

## NOT REPORTED

Sam Moore, Ithaca, New York

Eric Johnson, Ardmore, Okla.

Francis W. Parker, Jr., Chicago, Ill.

William H. Gould, West Toledo, Ohio

A. B. Jordan, Brattleboro, Vt.

Earle A. Barnard, Brattleboro, Vt.

E. N. Moor, Jr., San Francisco, Calif.

P. F. Studholme, Portland, Oregon

Albert F. Danforth, Arlington, Mass.

T. T. McClure, Santa Monica, Calif.

Charles R. Strong, Ardmore, Pa.

George W. Lewallen, St. Petersburg, Fla.

## TYRO CHAMPIONSHIP AT 50 FEET

| Name                                 | Address | Score | Rifle      | Sight | Ammunition |
|--------------------------------------|---------|-------|------------|-------|------------|
| Kenneth S. Van Trump, Oak Park, Ill. |         | 592   | Remington  | Iron  | Winchester |
| C. A. Jenkins, Hazleton, Iowa        |         | 586   | Winchester | Iron  | Palma      |
| Roderick Van Trump, Oak Park, Ill.   |         | 585   | Remington  | Iron  | Winchester |
| M. M. Works, San Antonio, Texas      |         | 583   | Spring.    | Iron  | U.S.N.R.A. |
| A. G. Sidenblad, Morris, Minn.       |         | 582   | Win. 52    | Iron  | Palma      |
| G. Maslin Davis, Blacksburg, Va.     |         | 578   | Spring.    | Iron  | Peters     |
| Jack C. Baker, Cincinnati, Ohio      |         | 577   | Spring.    | Iron  | Peters     |
| T. R. Barnes, Stanford, Calif.       |         | 576   | Win. 52    | Iron  | U.S.N.R.A. |
| J. V. Crawford, Stanford, Calif.     |         | 574   | Win. 52    | Iron  | U.S.N.R.A. |
| John Thiess, Jr., Cincinnati, Ohio   |         | 573   | Spring.    | Iron  | Peters     |
| Frank E. Smith, Tulsa, Okla.         |         | 571   | Win. 52    | Iron  | Palma      |
| James M. Brown, Cincinnati, Ohio     |         | 571   | Spring.    | Iron  | Peters     |
| Ray Blanchard, Evanston, Ill.        |         | 567   | Win. 52    | Iron  | Prec. 75   |
| W. G. Jones, Jacksonville, Fla.      |         | 567   | Spring.    | Iron  | Palma      |
| Hugh H. Rife, Tulsa, Okla.           |         | 567   | Win. 52    | Iron  | Palma      |
| Jim Bell, Sapulpa, Okla.             |         | 566   | Win. 52    | Iron  | Palma      |
| L. P. Krebhiel, Halstead, Kansas     |         | 565   | Win. 52    | Iron  | U.S.N.R.A. |
| Joseph B. Currier, Glendale, Calif.  |         | 564   | Spring.    | Iron  | Palma      |
| J. D. McNabb, Los Angeles, Calif.    |         | 563   | Win. 52    | Iron  | Winchester |
| C. D. Chubbuck, Stanford, Calif.     |         | 562   | Win. 52    | Iron  | U.S.N.R.A. |

(Continued on page 36)

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## TYRO CHAMPIONSHIP AT 50 FEET—Cont.

(Continued from page 35)

| Name                                | Address | Score | Rifle    | Sight    | Ammunition |
|-------------------------------------|---------|-------|----------|----------|------------|
| L. B. Weymouth, Stamford, Calif.    |         | 562   | Win. 52  | Iron     | U.S.N.R.A. |
| J. H. Kucera, Blacksburg, Va.       |         | 561   | Spring.  | Iron     | Peters     |
| W. Boale, Walla Walla, Wash.        |         | 560   | Win. 52  | Iron     | Palma      |
| Norman Sterrett, Beaver Falls, Pa.  |         | 558   | Win. 52  | Iron     | Prec. 75   |
| C. H. Kleist, St. Louis, Mo.        |         | 556   | Win. 52  | Iron     | Prec. 75   |
| M. Sykalle, Tucson, Ariz.           |         | 554   | B. S. A. | Iron     | Peters     |
| H. W. Daniel, Sapulpa, Okla.        |         | 553   | Win. 52  | Iron     | Palma      |
| J. W. Comprill, Halstead, Kansas    |         | 545   | Win. 52  | Win. 5-A | U.S.N.R.A. |
| S. I. Kornhauser, Louisville, Ky.   |         | 540   | Win. 52  | Iron     | Palma      |
| Sam J. Mansfield, Tucson, Arizona   |         | 535   | Win. 52  | Iron     | Peters     |
| Edgar T. Strange, Hershey, Pa.      |         | 533   | Win. 52  | Iron     | U.S.N.R.A. |
| Alpha B. Tripp, Leesville, Ohio     |         | 525   | Savage   | Iron     | Palma      |
| G. A. Hughes, Youngstown, Ohio      |         | 510   | Win. 52  | Iron     | U.S.N.R.A. |
| George P. Mosely, Llanerch, Pa.     |         | 509   | Spring.  | Iron     | U.S.N.R.A. |
| J. McP. Rutherford, Ft. Bliss, Tex. |         | 504   | Spring.  | Iron     | Palma      |
| Frank L. Yoran, Tarrytown, N. Y.    |         | 500   | Win. 52  | Iron     | Prec. 200  |

Selmer Erdahl, Morris, Minnesota

## UNABLE TO FIRE

## NOT REPORTED

P. H. Washburn, Brooklyn, New York  
 Prall Clauson, Evanston, Ill.  
 C. H. Wilson, Ortega, Fla.  
 R. O. Blakeslee, Omaha, Nebr.

W. B. Pape, Boston, Mass.  
 Eugene D. Moody, Evanston, Ill.  
 J. H. McAlpin, Omaha, Nebr.  
 George O. Snow, Sacramento, Calif.

## TYRO CHAMPIONSHIP AT 75 FEET

| Name                                | Address | Score | Rifle         | Sight     | Ammunition |
|-------------------------------------|---------|-------|---------------|-----------|------------|
| D. Clifford Golden, Kirklyn, Pa.    |         | 572   | Spring.       | Iron      | Palma      |
| O. H. Wheller, Boston, Mass.        |         | 560   | Win. 52       | Iron      | Prec. 75   |
| William H. Schultz, Cleveland, Ohio |         | 560   | Win. 52       | Iron      | Peters     |
| Clarence L. Lind, Boston, Mass.     |         | 558   | Win. 52       | Iron      | Prec. 75   |
| T. T. McClure, Santa Monica, Calif. |         | 557   | Neldner-Ball. | Iron      | Peters     |
| Arthur S. Dempsey, Seaside, Oregon  |         | 556   | Win. 52       | Iron      | U.S.N.R.A. |
| William L. Stephens, Moore, Pa.     |         | 556   | Win. 52       | Iron      | Palma      |
| Ira I. Wade, Boston, Mass.          |         | 555   | Win. 52       | Iron      | Prec. 75   |
| Damas L. Ford, Boston, Mass.        |         | 553   | Win. 52       | Iron      | Prec. 75   |
| Albert H. Elnor, Toledo, Ohio       |         | 553   | Win. 52       | Iron      | Prec. 200  |
| Everett O. Loring, Chicago, Ill.    |         | 550   | Win. 52       | Iron      | Prec. 75   |
| C. H. Kleibist, St. Louis, Mo.      |         | 549   | Win. 52       | Iron      | Prec. 75   |
| B. A. Courtright, Wilkes-Barre, Pa. |         | 547   | Spring.       | Iron      | U.S.N.R.A. |
| Sam J. Mansfield, Tucson, Arizona   |         | 546   | Win. 52       | Iron      | Peters     |
| F. C. Reimers, Paulina, Iowa        |         | 545   | B. S. A.      | No record | Peters     |
| M. Sykalle, Tucson, Ariz.           |         | 540   | B. S. A.      | No record | Peters     |
| G. A. Lindgren, Chicago, Ill.       |         | 540   | Win. 52       | Iron      | Prec. 75   |
| C. M. Stockman, Bedford, Ohio       |         | 535   | Win. 52       | Iron      | Palma      |
| Giacomo Bongalis, Boston, Mass.     |         | 533   | Win. 52       | Iron      | Prec. 75   |
| Carl S. Mundy, Toledo, Ohio         |         | 527   | Win. 52       | Iron      | Prec. 200  |
| Carl A. Du Nah, Pasadena, Calif.    |         | 521   | Win. 52       | Iron      | U.S.N.R.A. |
| Cecil O. LaMoria, Boston, Mass.     |         | 514   | Win. 52       | Iron      | Prec. 75   |
| Cleo Peterman, Toledo, Ohio         |         | 498   | Win. 52       | Iron      | Prec. 200  |

## NOT REPORTED

D. D. Mercer, Llanerch, Pa.  
 H. F. Johansen, Chicago, Ill.  
 Robert Neill, Venice, Ohio  
 William H. Gould, West Toledo, Ohio  
 R. E. Eisenlohr, Dayton, Ohio

C. Curtis Jahunka, Barrington, Ill.  
 John S. Finlay, Chicago, Ill.  
 Giles J. Mundy, Toledo, Ohio  
 Robert O. Eisenlohr, Dayton, Ohio  
 Sydnor Hall, St. Louis, Mo.

## SLOW FIRE PISTOL MATCH

| Name                                  | Address | Score | Arm            | Ammunition |
|---------------------------------------|---------|-------|----------------|------------|
| Clyde S. Marinus, Independence, Iowa  |         | 577   | Smith & Wesson | Palma      |
| Thomas Girkout, Gatun, Canal Zone     |         | 571   | Smith & Wesson | U.S.N.R.A. |
| I. G. McQueen, Moulton, Iowa          |         | 564   | Smith & Wesson | Peters     |
| T. K. Lee, Birmingham, Ala.           |         | 556   | Smith & Wesson | Peters     |
| Claude C. Golden, Indianapolis, Ind.  |         | 551   | Smith & Wesson | Peters     |
| E. Mannie, St. Louis, Mo.             |         | 542   | Colt Auto.     | U.S.N.R.A. |
| Eric Johnson, Ardmore, Okla.          |         | 542   | Smith & Wesson | Palma      |
| J. Fred Engert, Herkimer, New York    |         | 538   | Smith & Wesson | U.S.N.R.A. |
| A. H. Amick, Jr., Cumberland, Md.     |         | 537   | Smith & Wesson | Palma      |
| H. C. Williams, Monterey Park, Calif. |         | 529   | Colt Auto.     | U.S.N.R.A. |
| Harry S. Menkel, New York City, N. Y. |         | 526   | Smith & Wesson | U.S.N.R.A. |
| C. M. Corrinet, Pittsfield, Mass.     |         | 522   | Colt Auto.     | U.S.N.R.A. |
| E. H. Stuerman, St. Louis, Mo.        |         | 521   | Smith & Wesson | U.S.N.R.A. |
| George A. Marshall, Portland, Oregon  |         | 515   | Smith & Wesson | Peters     |
| T. T. McClure, Santa Monica, Calif.   |         | 508   | No record      | No record  |
| L. H. Lapinske, Wausau, Wisconsin     |         | 505   | Colt Auto.     | U.S.N.R.A. |
| William H. Riddle, Seaside, Oregon    |         | 499   | Smith & Wesson | U.S.N.R.A. |
| A. E. Hertzler, Halstead, Kansas      |         | 497   | Smith & Wesson | U.S.N.R.A. |
| Edgar W. Davis, Cambridge, Mass.      |         | 491   | Colt Auto.     | U.S.N.R.A. |
| W. F. Dunbar, Culver, Indiana         |         | 490   | Smith & Wesson | Winchester |
| R. O. Phillips, Yonkers, New York     |         | 489   | Smith & Wesson | U.S.N.R.A. |
| G. M. Uphaw, Whittier, Calif.         |         | 488   | Smith & Wesson | U. M. C.   |
| L. P. Krebbiel, Halstead, Kansas      |         | 482   | Smith & Wesson | U.S.N.R.A. |
| Jim Barlow, Halstead, Kansas          |         | 480   | Smith & Wesson | U.S.N.R.A. |
| James O. Norcross, Worcester, Mass.   |         | 477   | Smith & Wesson | U.S.N.R.A. |
| E. O. Engelhart, Ferguson, Mo.        |         | 472   | Colt Auto.     | Remington  |
| R. M. Bair, Hummelstown, Pa.          |         | 454   | Smith & Wesson | Peters     |
| Walter A. Grear, Cleveland, Ohio      |         | 444   | Smith & Wesson | U. S.      |
| Edgar T. Strange, Hershey, Pa.        |         | 422   | Colt 38        | Palma      |
| Henry N. Marsh, Wilmington, Del.      |         | 421   | Colt Auto.     | Palma      |
| H. M. Wolfe, Jr., Palmerton, Pa.      |         | 415   | Smith & Wesson | Palma      |
| Cleo Peterman, Toledo, Ohio           |         | 395   | Colt Auto.     | Prec. 200  |

## NOT REPORTED

W. L. Darling, Boston, Mass.  
 O. H. Klein, New York City, N. Y.  
 E. J. Barnes, Towanda, Pa.  
 Harry J. Laughlin, Wilkesburg, Pa.  
 W. B. Pape, Boston, Mass.  
 C. H. Wilson, Ortega, Fla.  
 Horace P. Shaw, Birmingham, Mich.  
 E. H. Bucknell, Seattle, Wash.  
 Eugene F. Bareis, Cumberland, Md.  
 M. L. Robinson, Los Angeles, Calif.

H. M. Van Sleen, Gastonia, N. C.  
 H. F. Barrett, New York City, N. Y.  
 F. D. Montanye, Towanda, Pa.  
 F. E. Whipple, Boston, Mass.  
 Leslie P. Clubine, Aurora, Iowa  
 W. G. Jones, Jacksonville, Fla.  
 Dr. Comprill, Halstead, Kansas  
 F. W. Parker, Jr., Chicago, Ill.  
 Robert O. Eisenlohr, Dayton, Ohio  
 Rupert L. Keith, Lansing, Mich.

## RAPID FIRE PISTOL MATCH

| Name                                     | Address | Score | Arm            | Ammunition |
|------------------------------------------|---------|-------|----------------|------------|
| Harry C. Williams, Monterey Park, Calif. |         | 546   | Colt Auto.     | U.S.N.R.A. |
| T. K. Lee, Birmingham, Ala.              |         | 535   | Colt Auto.     | Peters     |
| Clyde S. Marinus, Independence, Iowa     |         | 528   | Smith & Wesson | Palma      |
| M. L. Robinson, Los Angeles, Calif.      |         | 507   | Reising        | U.S.N.R.A. |
| J. Fred Engert, Herkimer, New York       |         | 480   | Colt 38        | Hand Load  |
| Jim Barlow, Halstead, Kansas             |         | 476   | Colt Auto.     | U.S.N.R.A. |

(Continued on page 37)

## TRYOUTS FOR INTERNATIONAL TEAM

(Continued from page 35)

ment. The loose-leaf score sheets will be returned as an appendix to the consolidated report. The report should indicate weather conditions prevailing throughout the tryouts, and should contain any special comments which appear necessary or advisable to aid in the selection of men to enter the final elimination trials.

## PRIZES—

Within the Corps Area to which you belong: To the high man, a silver medal; for second and third places, bronze medals.

The high men throughout the United States will be selected by a committee of the National Rifle Association, and these men will be sent to a central point, possibly Quantico, for the final tryout. The expenses incident to the trip, after selection by the committee above referred to, will be borne by the National Rifle Association.

The preliminary tryouts should in all cases be completed not later than March 20, and reports of the scores made at those tryouts should be forwarded to this office, through the Corps Area Commanders or the State Adjutants General.

The final tryout will be held between April 17 and 30. During this period the team will be selected and trained.

Departure of the team for Rome will be between May 1 and 5. As the matches take place May 20-June 5, it is believed the team should reach Rome not later than May 10.

This office wishes to impress upon every one the fact that it is hoped all who can make it possible to do so throughout the entire country will go to some range that has been made available, as explained above, and shoot the course. There is no restriction upon the number of times a candidate shoots over the course. All we are interested in is to locate 30 or 40 of the best shots in the United States, after which we will endeavor to have them meet at a central point and from these, in a strictly impartial manner, the team will be selected.

The cooperation of all is earnestly desired, in order that we may send to the International Matches in May the best team we can secure in the United States.

## NOVELTY MATCH TO STIMULATE ATTENDANCE

C. C. FINN ("In-again, Finn-again") submits the following, which is to be tried out by the Seattle Rifle and Revolver Club this winter. It sounds good and is recommended to all clubs as a novelty event, also an attendance booster.

"We have a new target which is the 75-ft. rifle target, all black, to make a large aiming bull. We got it out for 60-yard turkey shooting. This target we will fire on at 50 feet each shooting night until we get through with our indoor season. Each member will pay five cents entry fee per night and he will shoot only one shot per night. The shot will be scored, the target pasted on the back and kept safely by the range officer to be fired on the next week. The position fired from will be determined by lot just before the firing begins, by the secretary tearing four slips of paper, on each of which will be written one of the four firing positions, prone sitting, kneeling, or standing. The range of—

(Continued on page 37)

## RAPID FIRE PISTOL MATCH—Cont.

(Continued from page 36)

| Name               | Address          | Score | Arm            | Ammunition     |
|--------------------|------------------|-------|----------------|----------------|
| I. G. McQueen      | Moulton, Iowa    | 471   | Colt Auto.     | Peters         |
| William H. Riddle  | Seaside, Oregon  | 454   | Colt Auto.     | U. S. N. R. A. |
| Edgar W. Davis     | Cambridge, Mass. | 450   | Colt Auto.     | U. S. N. R. A. |
| Albert H. Elsner   | Toledo, Ohio     | 441   | Colt Auto.     | Free. 200      |
| Walter A. Grear    | Cleveland, Ohio  | 408   | Smith & Wesson | Peters         |
| Edgar T. Strange   | Harshey, Pa.     | 395   | Colt 38        | U. S.          |
| Jesse O. Norcross  | Worcester, Mass. | 384   | Smith & Wesson | U. S. N. R. A. |
| Cleo Peterman      | Toledo, Ohio     | 357   | Colt Auto.     | Free. 200      |
| George A. Marshall | Portland, Oregon | 257   | Colt Auto.     | Western        |
| Willard P. Dunbar  | Culver, Ind.     | 232   | Colt Auto.     | Free. 75       |

## UNABLE TO FIRE

Wallace L. Darling, Boston, Mass.

## NOT REPORTED

W. G. Jones, Jacksonville, Fla.  
 W. B. Pape, Boston, Mass.  
 Harry S. Henkel, New York City, N. Y.  
 P. W. Parker, Jr., Chicago, Ill.  
 Frank D. Montanye, Towanda, Pa.  
 C. H. Wilson, Ortega, Fla.

Leslie P. Clubine, Aurora, Iowa  
 O. H. Klein, New York City, N. Y.  
 E. Carl Engelhart, Ferguson, Mo.  
 E. J. Barnes, Towanda, Pa.  
 Arthur E. Hertzler, Halstead, Kansas

## CHICAGO TRIBUNE TROPHY MATCH

Following are the results of the Chicago Tribune Trophy Match, fired by the clubs of the Chicago Rifle Association for a trophy presented by the Chicago Daily Tribune. The trophy was won by Centennial. Stephen D.

Monahan, of the Hamilton Club was high individual. A feature of the match was a shoulder to shoulder contest between Mr. Monahan and L. M. Felt, Mr. Monahan won.

The scores:

## MATCH, 1926, CHICAGO RIFLE ASSOCIATION

|                |    | Prone |       | Sitting |       | Kneeling |       | Standing |       | Total |       |
|----------------|----|-------|-------|---------|-------|----------|-------|----------|-------|-------|-------|
|                |    | Place | Score | Place   | Score | Place    | Score | Place    | Score | Place | Score |
| CENTENNIAL     |    |       |       |         |       |          |       |          |       |       |       |
| V. A. Parts    | 20 | 586   | 7     | 147     | 3     | 145      | 5     | 279      | 5     | 1157  |       |
| Ed Ciesler     | 11 | 592   | 2     | 149     | 9     | 139      | 19    | 237      | 16    | 1117  |       |
| W. Wolff       | 2  | 599   | 14    | 144     | 8     | 140      | 6     | 277      | 4     | 1167  |       |
| A. M. Freeland | 12 | 592   | 3     | 149     | 20    | 133      | 4     | 280      | 6     | 1154  |       |
| F. D. Wheeler  | 7  | 594   | 6     | 147     | 14    | 137      | 12    | 255      | 10    | 1138  |       |
| C. A. Jones    | 23 | 584   | 25    | 135     | 15    | 137      | 22    | 228      | 25    | 1084  |       |
| Evelyn Hawley  | 31 | 554   | 31    | 122     | 26    | 122      | 28    | 187      | 30    | 985   |       |
| HAWTHORNE      |    |       |       |         |       |          |       |          |       |       |       |
| C. A. Bouvier  | 6  | 595   | 15    | 144     | 2     | 147      | 8     | 268      | 7     | 1154  |       |
| E. H. Larue    | 16 | 590   | 8     | 147     | 22    | 132      | 13    | 252      | 14    | 1121  |       |
| J. F. Wegforth | 24 | 584   | 27    | 129     | 32    | 83       | 32    | 113      | 31    | 909   |       |
| Margo Schultz  | 14 | 591   | 26    | 135     | 23    | 126      | 31    | 154      | 27    | 1006  |       |
| CLARKSVILLE    |    |       |       |         |       |          |       |          |       |       |       |
| Nordhus        | 3  | 597   | 5     | 148     | 4     | 145      | 3     | 281      | 3     | 1171  |       |
| Cocraft        | 13 | 592   | 16    | 144     | 5     | 145      | 7     | 270      | 8     | 1151  |       |
| Hallett        | 15 | 591   | 9     | 147     | 13    | 138      | 16    | 250      | 12    | 1126  |       |
| Atterton       | 10 | 593   | 12    | 145     | 10    | 139      | 25    | 220      | 22    | 1097  |       |
| Probert        | 30 | 577   | 28    | 129     | 30    | 119      | 30    | 168      | 29    | 993   |       |
| Moberg         | 25 | 583   | 11    | 146     | 18    | 134      | 20    | 235      | 21    | 1098  |       |
| IRVING PARK    |    |       |       |         |       |          |       |          |       |       |       |
| L. M. Felt     | 8  | 594   | 10    | 147     | 1     | 148      | 2     | 285      | 2     | 1174  |       |
| J. Rak         | 22 | 585   | 20    | 143     | 7     | 141      | 15    | 251      | 15    | 1120  |       |
| H. Beedy       | 27 | 581   | 22    | 142     | 11    | 139      | 23    | 227      | 24    | 1089  |       |
| Millbrook      | 19 | 587   | 17    | 144     | 12    | 139      | 14    | 252      | 13    | 1122  |       |
| CHICAGO        |    |       |       |         |       |          |       |          |       |       |       |
| C. J. Danesger | 17 | 590   | 13    | 145     | 24    | 124      | 21    | 231      | 23    | 1090  |       |
| L. H. Anderson | 5  | 596   | 1     | 149     | 16    | 137      | 24    | 226      | 18    | 1108  |       |
| COMMONWEALTH   |    |       |       |         |       |          |       |          |       |       |       |
| F. D. Gibson   | 26 | 581   | 23    | 140     | 19    | 134      | 17    | 246      | 20    | 1101  |       |
| T. Johnson     | 28 | 579   | 29    | 125     | 27    | 122      | 27    | 201      | 26    | 1027  |       |
| BELL TELEPHONE |    |       |       |         |       |          |       |          |       |       |       |
| Mabel Rose     | 32 | 530   | 32    | 96      | 29    | 120      | 33    | 97       | 32    | 843   |       |
| F. McKitts     | 29 | 578   | 30    | 125     | 31    | 114      | 29    | 179      | 28    | 996   |       |
| K. W. Selander | 21 | 586   | 21    | 143     | 28    | 122      | 10    | 264      | 17    | 1115  |       |
| R. B. Grieg    | 4  | 597   | 18    | 144     | 25    | 123      | 9     | 265      | 11    | 1129  |       |
| HAMILTON       |    |       |       |         |       |          |       |          |       |       |       |
| S. Monahan     | 1  | 599   | 4     | 148     | 6     | 145      | 1     | 287      | 1     | 1179  |       |
| W. J. McRae    | 18 | 590   | 24    | 138     | 21    | 133      | 18    | 244      | 19    | 1105  |       |
| Adams          | 9  | 594   | 10    | 144     | 17    | 136      | 11    | 263      | 9     | 1137  |       |

## NOVELTY MATCH EXPLAINED

(Continued from page 36)

Each will draw one slip and the gang will be lined up at one firing point. Each in turn will run out his target, fire his one shot, and the target will be returned and scored. If a member happens to be absent one night, that costs him whatever score he might have been able to make, so we hope that the match will encourage attendance. When the season is over there ought to be about \$4.00 in the pot. From this we will take the sum of thirty cents which will be divided, fifteen cents to the lowest score, ten cents to the next and five cents to the next. The remainder will be divided fifty per cent to the highest score, thirty per cent to the next and twenty per cent to the next, which will give some prize to almost all of our faithful shooters."

## STOCKTON WINS INTER-CITY SHOOT

THE Roberts Island Rifle Club of Stockton, California, won the New Year's shoot against the Sacramento Rifle and Pistol Club. The Roberts Islanders are now the permanent, proud possessors of the New Year's Rifle Championship Cup. The cup was won the first time by Roberts Island and the second time by Sacramento and the third time decided the series.

The firing was done on the 50-yard outdoor range at Roberts Island. .22 rifles were used and any type of sights was permitted. Five sighting shots were allowed, and each man shot ten for record.

The total scores of both teams were 489. The Stocktonians won by one "v". The Stockton shooters made 17 "v's", while the Sacramentans made 16.

## OHIO RIFLEMEN HOLD DISTRICT MATCH

SEVEN teams fired a shoulder-to-shoulder match at the gallery of the Delaware, Ohio Rifle Club on December 18. The conditions called for teams of five, five shots per man in each of the four standard positions. McMillan of Mt. Vernon was winner of high individual, with a total of 195 x 200. His team mates were not nearly so consistent, however, as the men from Marion. The Marion team turned in a total of 961 embody, with a high score of 194 and a low score of 191. The complete scores were as follows:

## MARION—961

|          |    |    |    |        |
|----------|----|----|----|--------|
| Imbody   | 50 | 50 | 49 | 45—194 |
| Pasters  | 48 | 49 | 48 | 48—193 |
| Brady    | 50 | 49 | 49 | 44—192 |
| Dennison | 49 | 49 | 48 | 45—191 |
| Doyle    | 50 | 50 | 50 | 41—191 |

## RICHWOOD—948

|          |    |    |    |        |
|----------|----|----|----|--------|
| Duke     | 50 | 50 | 47 | 47—194 |
| Riley    | 49 | 48 | 47 | 45—189 |
| Brooks   | 49 | 48 | 47 | 45—189 |
| Wall     | 50 | 50 | 49 | 40—189 |
| Marriott | 49 | 50 | 48 | 40—187 |

## COLUMBUS BUSINESS MEN—946

|           |    |    |    |        |
|-----------|----|----|----|--------|
| Nikodym   | 50 | 50 | 49 | 44—193 |
| Bardon    | 50 | 48 | 49 | 44—191 |
| Teague    | 48 | 44 | 50 | 48—190 |
| Hooe      | 50 | 49 | 44 | 46—189 |
| Henderson | 49 | 50 | 48 | 36—183 |

## COLUMBUS RIFLE CLUB—937

|          |    |    |    |        |
|----------|----|----|----|--------|
| Nicklaus | 50 | 50 | 47 | 47—194 |
| Martin   | 50 | 50 | 47 | 45—192 |
| Murphy   | 49 | 47 | 45 | 44—185 |
| Mavis    | 50 | 50 | 43 | 40—183 |
| Sherman  | 49 | 49 | 48 | 37—183 |

## DELAWARE—926

|        |    |    |    |        |
|--------|----|----|----|--------|
| Smith  | 49 | 48 | 42 | 47—186 |
| Gohues | 50 | 45 | 48 | 43—186 |
| Jaynes | 50 | 50 | 44 | 42—186 |
| Lewis  | 50 | 45 | 48 | 43—185 |
| Noonan | 49 | 48 | 45 | 41—183 |

## MT. VERNON—921

|             |    |    |    |        |
|-------------|----|----|----|--------|
| McMillan    | 49 | 49 | 50 | 47—195 |
| Crider      | 49 | 50 | 47 | 39—185 |
| Davis       | 49 | 47 | 44 | 45—185 |
| Taylor      | 50 | 48 | 45 | 41—184 |
| Van Voorhis | 50 | 47 | 41 | 34—172 |

## MARYSVILLE—824

|             |    |    |    |        |
|-------------|----|----|----|--------|
| Carr        | 50 | 49 | 43 | 42—184 |
| Donley      | 49 | 48 | 40 | 41—178 |
| Blumenshine | 49 | 49 | 43 | 35—176 |
| Foster      | 40 | 45 | 37 | 32—154 |
| Swink       | 50 | 44 | 26 | 22—142 |

The members of the teams and their scores were:

## STOCKTON

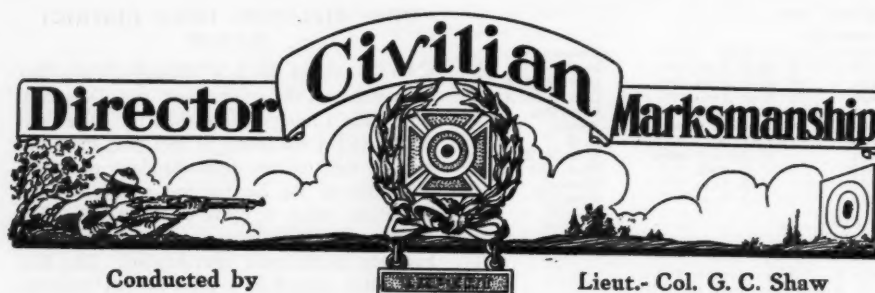
|                     |     |
|---------------------|-----|
| Henry P. Ronkendorf | 100 |
| Harry Wolfinger     | 98  |
| Walter Gyr          | 98  |
| Charles Ellis       | 97  |
| Waldo Haeck         | 96  |
| Gilbert Barthold    | 89  |

## SACRAMENTO

|                   |     |
|-------------------|-----|
| Norman Mini       | 100 |
| Maurice Kaiser    | 99  |
| Carl Penner       | 98  |
| Kenneth Curtright | 96  |
| George Snow       | 96  |
| William Eberwine  | 86  |

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Conducted by

Lieut.- Col. G. C. Shaw

## PROPERTY RETURNS

AT THE time of writing this only about twenty-five per cent of the clubs have sent in their Annual Property Returns and Reports of Firing. It was requested that all be in by February 1, and this request does not seem to be at all unreasonable. When you read this, if you are a club secretary or president, ask yourself whether or not you have mailed these two necessary reports as yet. You will receive acknowledgment of the receipt of the Report of Firing within a few days of mailing it in, and if the two reports have been mailed together you will then know that the Property Return reached here. It may take a little longer for the notice that the Return has been filed to reach you, due to the fact that these papers take longer to check than the Reports of Firing.

The main thing to keep in mind is the absolute necessity of getting these reports in promptly. The regulations under which the Government property is issued to the several clubs require that these two reports be submitted annually. If these reports are not submitted, it will be considered sufficient reason for the withdrawal of the property. During the year 1926 quite a number of clubs were required to turn in the Government stores for failure to send in their reports. These two reports are required so that this office may determine as well as possible the condition of the property, and the use to which it is being put.

\* \* \*

## GET IN REQUISITION FOR 1927 ALLOWANCE

IT IS urged that each club send in its requisition for the annual allowance of ammunition, targets, etc. The allowance is now calculated for the calendar year, beginning January 1, instead of the fiscal year beginning July 1. Quite a few of the clubs are taking time by the forelock and are getting in their requisitions now. They are being handled in the order received. If you will try to get in your requisition early, and not later than March 31, you will undoubtedly receive your supplies in ample time to begin firing early in the season. Do not delay, get your requisitions in NOW. If your Report of Firing and Annual Property Return are in, and your club dues for 1927 paid to the National Rifle Association, then the club is in good standing all around and the requisition will be approved promptly.

## PURCHASES OF POWDER

THOSE N.R.A. members who intend to purchase powder through this office should remember that according to law it is necessary that all shipments of powder be made by freight. Manufactured ammunition, primers, and other manufactured components containing explosive may be shipped by express. For freight shipments the rate charged by the transportation company is for 100 pounds. Therefore if you order powder, be sure to find out what the freight charges will be before purchasing it. The rate per hundred pounds to the Pacific Coast will make the powder rather expensive if you only order a pound or so. The rate to the Pacific Coast is between \$5.00 and \$6.00 per hundred pounds, and as the minimum charge is for 100 pounds, you can see that you will have to order a few pounds to make the shipment pay. Also, remember that no explosives may be shipped by mail.

\* \* \*

## CAL. .22 SPRINGFIELDS ON HAND

THERE are sufficient U. S. Rifles, cal. .22, Model 1922, M-1, on hand to take care of all current orders. The price of this rifle is \$46.00, plus \$1.34 packing charges. Extra magazines, \$1.85 each.

\* \* \*

## NEW REQUIREMENT

THIS notice is IMPORTANT. In the case of all future orders or applications for the purchase of material through this office it will be necessary for the purchaser to make a definite statement to the effect that the material desired is for his own personal use and not for resale. This requirement is made necessary, due to the fact that it has been found that it is possible for arms to fall into undesirable hands through resale. This requirement is going to be enforced so as to relieve this office from criticism in connection with these sales. So be sure to make the statement that the material wanted is for personal use and not for resale, otherwise your order will have to be returned for it. In case a number of N.R.A. members are purchasing at the same time and desire that all of the rifles, etc., be shipped together in order to save transportation charges, each applicant will have to sign the required statement.

\* \* \*

THE present price of the Krag rifle is \$1.50, while the price of the Krag rifle, cut down to carbine length (22 inches), is \$3.50.

## REGARDING ORDERS FOR MATERIAL

A NUMBER of things that cause delays in filling orders for material have been noticed from time to time. If you will read the following over carefully it is believed that it will save you time the next time you order anything from this office.

Send orders for property sold through the D.C.M. to this office.

Address, D. C. M., 1635 Tempo Bldg., No. 5, Washington, D. C.

Make remittances payable to "Director of Civilian Marksmanship," and not to any individual or the N.R.A.

Do not send personal checks. Money orders, certified checks, drafts, etc., are acceptable. Personal checks cannot be accepted.

Send separate remittances when ordering different types of material. For instance, when ordering a rifle, a gunslung, and ammunition, send three remittances. This is because the orders ordinarily will have to be sent to different arsenals.

Be sure to allow packing charge where one is required. See price list for correct packing charges.

Material cannot be shipped C.O.D. Must be paid for in advance. If you desire parcel post shipment on small orders, be sure to enclose sufficient STAMPS. Do not include postage in your money order. Express, collect, shipment is recommended for rifles, etc.

Send in your N.R.A. membership card properly signed. The card will be returned when the sale is completed. Be sure to send in the card with all orders. This requirement is due to the different dates of expiration of membership. No orders filled on any card after date of expiration of membership.

When you order a barrel or receiver, it is necessary that you make provision for assembly at Armory, unless you desire to have it shipped to some competent gunsmith for assembly, or make the definite statement that you are competent to do the work yourself, or have a competent local gunsmith.

Parts for the cal. .22 rifle and the new cal. .22 M-1 cleaning rods are available only at Springfield Armory. Be sure to include proper packing charge.

Remember the statement about the material being for personal use and not for resale. Rifle clubs purchasing ammunition, spare parts, target material, etc., should state that the material is for use by members of the club, naming the club, and not for resale.

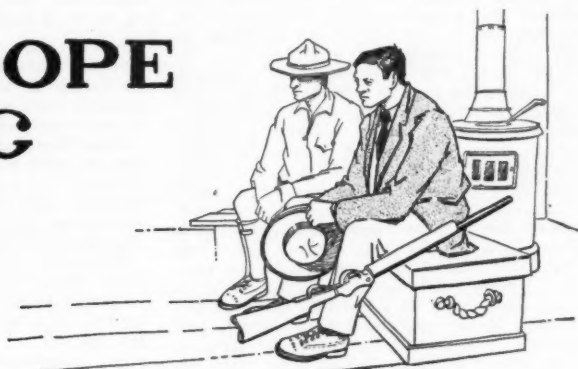
\* \* \*

## CAL. .38 REVOLVER AMMUNITION

A LIMITED quantity of cal. .38 revolver ammunition, packed 3,000 rounds to the case, is available. This ammunition is in serviceable condition, with slightly reduced velocity due to age. It is sold under the same conditions as other obsolete stores, that is, "as is." For sale in case lots only at \$30.00 per case. Shipped from Frankford Arsenal, Pa., by freight, unless specified otherwise.



## THE DOPE BAG



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**Rifles and Big Game Hunting: Lt.-Col. Townsend Whelen**

**Pistols and Revolvers: Major J. S. Hatcher**

**Shotgun and Field Shooting: Captain Charles Askins**

**Every Care is used in collecting data for questions submitted, but no responsibility is assumed for any accidents which may occur.**

## Ammunition is Better

By Townsend Whelen

I HAVE followed with interest the improvement in accuracy in our rifles and ammunition during the past ten years, but am somewhat puzzled as to the present situation. From numerous references it would seem that the Mann-Niedner tight chamber gave the finest consistent accuracy and that groups of from two to two and one-half inches could be expected at 200 yards. These same results seem to be attained by many of the Springfield Sporters issued by the Government. Does this mean that our ammunition is now manufactured with such accuracy that the tight chamber with the consequent need of saving shells has become unnecessary.—H.N.D.

Answer (by Colonel Whelen). You are perfectly right in your assumption relative to the rifles having the Mann-Niedner special chambers and the present sporting Springfield rifles when used with 1925 National Match ammunition.

The Mann-Niedner chamber was developed simultaneously by Dr. Mann and Mr. Niedner at a time when bullets were not nearly as perfectly made, nor as well designed as today. They gave, and still do give, most excellent accuracy because the chamber was cut so as to both center the bullet accurately in line with the axis of the bore while still in the case, and so as to insure the bullet passing from the case, through the throat or bullet seat into the bore with the minimum deformity. Being undeformed by the jump, the bullet flew most accurately when it left the muzzle.

In the last four years we have made very great strides in our knowledge of the manufacture of ammunition. This improvement is noticeable in some few of our cartridges, and particularly in the 1925 National Match ammunition, and in the new Springfield service ammunition known as the .30 caliber Mark 1, which is very similar to the 1925 National Match. I shall use this ammunition to illustrate my point.

The 172-grain, 9-degree boat-tail bullet is made with very much more care, and much more perfectly than any of our older bullets. Moreover, it is made with a very much thicker and tougher jacket than the older bullets were made with. As a result, it stands the jump from the case, through the throat, into the bore with very much

less deformation than the older bullets did. In seating this bullet in the cartridge case greater pains than formerly are taken to see that it fits well up into the bullet seat, so that it will be straightened up thereby with its axis as nearly as possible coincident with the axis of the bore before firing, and so that the minimum jump will occur. The result of these are that very much the same action takes place as in the Mann-Niedner chamber. The bullet issues from the muzzle with very much less deformation than formerly, and very much better accuracy results. There has also been considerably improvement in the powder which must be taken into consideration. I should say, therefore, that the Springfield sporting rifle with 1925 National Match ammunition or the new service ammunition, compared very favorably with rifles having the Mann-Niedner chamber.

The Niedner Rifle Corporation has taken advantage of this improvement in bullets to put out a number of their barrels with chambers of the same general form as the Springfield chamber, and from these they are now getting most excellent accuracy. A notable example of this is their 7 mm. barrel, which gives accuracy with hand-loaded ammunition, or with some commercial ammunitions, quite equal to that of the Springfield.

Bearing all these principles in mind, I have also lately been able to get most excellent accuracy from other calibers. For example, the .250-3000 Savage. The Western Cartridge Company makes a most excellent .25 caliber, 87 grain full-jacketed sharp-point bullet for this rifle. I figured that if I loaded that bullet at a slightly reduced velocity and pressure it would jump through the throat with minimum deformity, and also that further advantage would be had by loading it farther out of the case than normal, thus insuring better fit into the throat.

Ammunition loaded in this way has given most remarkable accuracy in the Savage rifle. I have made a number of groups at 100 yards less than an inch in diameter.

I trust that I have been able to make myself clear to you. It has all been due to improvement in ammunition, mostly to improvement in bullets, partly to powder.

### KEEP IT AS RELIC

I HAVE in my possession a German Mauser rifle, caliber 7.9 mm., which is a regular service rifle. It was recently sent to me as a war relic, but owing to its good condition, I would like to know if I can fix up a good sporter of it. What I want to know is this:

1. Is ammunition easily available?
2. If not, can it be rebored to any standard caliber?
3. Will the removal of the rear sight and cutting a slot for an adjustable rear sight weaken the barrel?
4. Granted a favorable answer to the above three, will the gun be worth the trouble?

I also own a Mauser which was sold by the Iver Johnson Co., Boston, Mass. It is a .30-06, and seems fairly accurate, but the sights are bad, especially the rear. Who can fix open sights on it? What is your opinion on this gun? The trigger will not always release the bolt, and it does not fire all the time. Is it just worn out, or what is wrong?

These guns were given to me, and I would like to fix them up. The .30-06 has a new barrel, and I like its shooting qualities, but for the trigger hanging. If you can help me on either or both of these, it will be very much appreciated.—W. A. K.

Answer (by Colonel Whelen). The German service Mauser rifle uses the 7.9 mm. Mauser cartridge, or the 8 mm. Mauser cartridge, the two being so nearly alike as to be interchangeable. In this country the Remington Arms Company make two varieties of 8 mm. Mauser ammunition. That variety known as the Remington 8 mm. Mauser Special cartridge, with 170-grain expanding bullet, is designed especially for use in 7.9 mm. German Mauser rifles, and ought to do fair work in your rifle. It has a bullet easily expandable, so that it will do fairly well in all of the great variety of bores we find in these rifles. The cutting of a slot in the barrel always weakens the barrel, increases the vibration, and makes this vibration very variable, thus hurting the accuracy. It is not inadvisable, perhaps, from a standpoint of safety, but it is from a standpoint of good shooting. The rear sight may be removed entirely, and a Lyman No. 48 receiver sight may be attached.

However, I doubt the advisability of doing anything with this rifle other than keeping it as a relic. The 7.9 mm. barrels cannot be rebored to any other size as there is



not metal enough. Moreover, of all the calibers that I know of, this is the most inaccurate, due to the very great variation of bore and of ammunition provided.

Relative to your .30-06 Mauser: I cannot tell what is the trouble with the trigger and breech mechanism from your description. However, this is easily altered and corrected. Messrs. Griffin & Howe, 234 East 39th Street, New York, can fit a new open sight to your rifle by means of a band around the barrel, or, as is most advisable, remove the present sight and substitute a Lyman No. 48 receiver sight. They can also easily correct the trouble with the trigger. I should advise sending the rifle to them. However, if they have no facilities for sighting in the rifle with open sights, and anyhow, even if they had such facilities, it is extremely unlikely that an open sight adjusted by one man would be at all satisfactory for some other man's shooting. With the Lyman receiver sight you yourself can readily adjust the sight so that the point of aim and point of impact coincide at any range.

\* \* \*

#### A DOUBLE-DUTY GUN

I AM thinking about getting a new scattergun, and have about decided on the Remington 10 t.s. Would you advise 32 or 30-inch barrel? Matted barrel, or solid-rib matted? This gun to be used at the traps and ducks and chickens. Will this gun shoot as well as any other field gun on game? In short, I want a combination gun for trap and field use.—W. L. W.

Answer (by Captain Askins). My own Remington pump is the best shooting gun that I have. If all Remingtons are like it, you can't do better. I believe the matted rib would be an advantage in trap shooting. Thirty-two-inch barrel for the trap, 30 long enough for ducks.

\* \* \*

#### GET SOME SUPER

WILL you kindly recommend a reliable heavy duck load for 10 gauge. On the strength of some article I read in THE AMERICAN RIFLEMAN, I have ordered a new 10-gauge, No. 3 Ithica, 32-inch barrel, right improved cylinder, left modified choke, and I want to try some heavy loads, using the new powders. I expect to have the shells loaded to order, and want big velocity, using not over 1 1/4 oz. No. 5 or No. 6 shot.—E. T. S.

Answer (by Captain Askins). No use to use a ten-bore with an ounce and a quarter of shot. Get the new Super-X load in No. 5 shot. This load contains a new description of shot and will go out pretty far in a ten-bore gun.

\* \* \*

#### BEWARE SMOKELESS

I HAVE an Ideal reloading tool, made by the Marlin Co., and stamped .38 S. & W.-M. Is this tool for the .38 S. & W. Special?

The regular bullets made in a .38 S. & W. special mould, after being sized, seem to just fit the sizing hole in the tool I have, but when the neck of the shell is resized and the bullets are seated, part of the lead of the bullet shaves off and presses down over the outside of the shell, and I thought perhaps this was the wrong tool for .38 Special.

I have a mold (Ideal No. 358,311) and would like to know if this is .38 Special caliber. What is the weight? Also, what would be the best charge of black powder for this bullet? What are the proper smokeless powders to use and the amount of same?

I don't want full power loads, but only a shotgun is intended for feathered game

something that will be fairly accurate up to 25 or 50 yards.—H. E. M.

Answer (by Major Hatcher). The Ideal tool you have is probably intended for the .38 Smith & Wesson, but if it has an adjustable chamber it can be used to load the Special also, as it has the same size bullet.

After the neck of the shell is resized you always have to expand it to just the right diameter to take a bullet. If you resize the neck and do not expand it with a shell expanding plug, you will invariably get it too small in size.

Moreover, in order to allow the bullets to be started into the shell properly, there is a tapered plug on the bottom of your loading chamber which can be forced into the mouth of the shell to bend out the edges somewhat to keep it from shaving lead.

I would suggest that you write to the Lyman Gun Sight Corp., Middlefield, Conn., and obtain a hand-book of their reloading tools, which gives you a lot of information.

The bullet 358,311 is a .38 Special. The weight will depend somewhat on the mixture of metal it is made of, but it will be about 158 grains. It should be made of one part tin to fifteen parts lead and the proper load of black powder for a medium powder would be about 15 grains of FFFG. You can use 20 grains if you wish to get higher power, but be sure to use black powder, as a charge of 20 grains of any smokeless powder would blow your gun all to pieces.

\* \* \*

#### THIS GUN IS NORMAL

I HAVE a Model 11 self-loading Winchester shotgun, with 26-inch barrel, full choke. How does this gun compare with a double-barrel gun for penetration, other things being equal, such as length of barrel, and shells loaded the same?

How does a gun with 26-inch barrels compare with a gun with 30-inch for penetration?

What length of barrel do you consider necessary to get the maximum penetration with a 12-gauge shotgun, and why?—W.E.O.

Answer (by Captain Askins). Your gun has the same penetration as other guns of like length of barrels. Velocity might fall on forty feet in a 26-inch barrel, as compared with a 30 inch, but you would hardly be able to tell the difference in shooting. Something would depend, too, on the kind of load used. The heavier the load the shorter barrel length in which all the powder burns. Some powders are quicker than others also, and would develop full force in a 26-inch barrel, as ballistite and infallible.

\* \* \*

#### WHY USE IT?

WILL you kindly give me proportions of shot and powder for 12-gauge buckshot loading, also the best powder to use. Please tell me whether the 2 1/4-inch is a better length than the 2 1/2. Also please give me the number and kind of wads to use with this load in the standard length and in a 3-inch shell.

Will you tell me, also, where I can obtain the best loading tools and block?

Do you consider the No. 1 Eastern Pattern buckshot too small for use on the small deer which we have here in our country?

Will you refer me to a text-book on loading of shotgun shells?—G. A. M.

Answer (by Captain Askins). I never load any buck shot. Don't like 'em. Don't think they ought to be used on deer. What are rifles for? It is time the South got over this notion of shooting deer with a shotgun.

and not for anything else, not even for squirrels and rabbits. If I had to shoot deer with a shotgun, I'd use round bullet loads. Western Cartridge Company makes some good ones which will hit deer at 60 yards, once sighted in.

\* \* \*

#### CHANGING KRAG SIGHTS

I HAVE a Krag rifle that I would like to cut the barrel to 24 or 26 inches, but am rather puzzled about the front sight; but I notice that the D. C. M. has fitted the Springfield front sight on the Krags they now have for sale. Can you give me instructions how to do this? Is the front sight base and ring shrunk on the Springfield, or is it a part of the barrel?

I have a copy of your "Amateur Gunsmithing," and am using the instructions to restock this rifle, and find it very helpful.

I have a model 20 Savage, .250-3000, and would like to have your advice as to fitting sling swivels on it.

How near does the sporting stock sold by the D. C. M. come to the size of the stock for the average man, as mentioned in "Amateur Gunsmithing"?

I have a rifle, bolt action, that was given me that I have been using 8 mm. cartridges in, and wonder if the 8 mm. cartridges the D. C. M. has for sale would fit this rifle?

The rifle is marked Erfurt, 1890, and looks very much like the cut of the Russian for sale by the D. C. M.

Have you ever tried the 60-grain hollow-point bullet in the .250-3000?—A. L.

Answer (by Colonel Whelen). The Springfield front sight assembly can readily be secured to the barrel of a Krag rifle when it is cut off to 22 to 24 inches. I am not sure if a close fit can be assured if the barrel be cut off to 26 inches, but think that it can.

The portions of the Springfield front sight assembly are known as the fixed stud, movable stud, and front sight. The fixed stud contains a band which encircles the barrel. The barrel where this band encircles it must be approximately .63 inch to give a tight fit. That is just about the diameter of the Krag barrel between 22 and 24 inches. The band of the fixed stud is driven on or slipped over the barrel and is held from rotating on the barrel by a small spline in conjunction with a longitudinal spline cut in the inside of the band and on the upper surface of the barrel under the band. It is also held secure on the barrel by a pin. Besides making sure that the barrel under the band measures right for the band to be tight and almost a driving fit, it is necessary to make the two cuts on the upper portion of the barrel for the spline and the retaining pin, then the fitting of the band is a very simple matter. The assembly of the movable stud and the front sight is also simple, including the zeroing of the rifle by moving the movable stud sideways through the fixed stud until the rifle shoots right for zero, and then the drilling of the zero screw hole in the fixed stud. You will readily understand the whole thing when you get the parts from the D. C. M. If desired for hunting, the regular military front sight blade can be replaced with a blade having a gold bead, obtainable from Lyman or any of the other sight manufacturers.

The Savage Arms Company can furnish you with sling eyes, the rear one screwing into the butt-stock, and the front one screwing through a hole in the tip of the forearm into a stud or nut on the under side of the forearm. The sling is attached to these eyes by means of hooks. This is the usual procedure, but it is far from satisfactory, as the sling is forever getting tangled up, due to the rotation of the hooks, and the



hooks rattle in the eyes and are liable to disturb game just when one wants to be quiet. Winchester makes a noiseless detachable sling swivel which they used to furnish on their old Model 1895 musket in .30-40 caliber, and which they can still furnish. The bases for these screw to the stock and forearm by two screws, and are not at all obtrusive. The swivel itself, attached to the sling, has a pin which runs through the hole in the base, and is retained in position by a little plunger, so that the swivel can be removed from the base instantly. The combination is noiseless and does not twist. I do not know the price, but the swivels and bases with screws would not cost much. I think that you can get them direct from Winchester, or Griffin and Howe, 234 East 39th Street, New York, have them on hand. Almost all of the gunsmiths who specialize in the remodeling of Springfields also have the German type of sling swivels on hand which could easily be placed on the Savage without much work. The front swivel should be located about 2 inches in rear of the tip of the forearm, and the rear swivel about  $2\frac{1}{2}$  inches forward of the toe of the butt-plate.

The 8 mm. cartridges which the D. C. M. has are the 8 mm. French Lebel, an entirely different cartridge from the 8 mm. used in the German Mauser military rifle. The name "Erfurt" is merely the name of one of the arsenals at which the Mauser rifles were made. I think that you can buy ammunition for the German 8 mm., or 7.9 mm., as it is more properly called, rifle, from Bannerman of New York.

The 60-grain hi-speed bullets do very well in the .250-3000 rifle. I have had many most excellent reports from them. The proper powder charges are: 36 to 40 grains of du Pont No. 16. 33 grains of Hercules Lightning. Also, perhaps the best maximum load is 39.0 grain weight of du Pont No. 17 $\frac{1}{2}$  powder, which will give a muzzle velocity of about 3,200 f.s.

\* \* \*

### GET THE DOPE FIRST!

A FRIEND of mine with a .45 S. A. Colt and I with a model 1917 S. & W. have decided to do some reloading this winter. What are the best reloading tools? What the best gallery loads? The N.R.A. list does not seem to give empty cases for the .45 A.C.P. Presume they would not have the auto-rim cases anyhow. Would the D.C.M. primers fit the commercial cases, or are they smaller? What is the best round-ball load, and how about the 203 grain, No. 451, 210 B. & M. round-nosed bullet?—A. W. G.

Answer (by Major Hatcher). Of course, the first thing to do when starting in on reloading is to get hold of the available literature on this subject. No doubt you have Belding & Mull's Hand-Book and the Bond and Ideal Hand-Books, and from these you can pick out the style of reloading tool that suits you best.

Any one of these three tools will give excellent satisfaction.

I invite your particular attention to the latest pamphlet gotten out by Belding & Mull, a little 7-page folder called "Reloading Revolver Cartridges—Sec. 2."

This gives information on using round-ball loads with black shotgun smokeless powder for short-range work, and recommends for the .45 caliber, a .452-inch ball with from 3 to 7 grains of Dupont shotgun.

For these small loads you can, of course, do without one of the powder-measuring machines, as you can file up a charge cup out of an old cartridge case, because these loads are so small that slight variation will not run you into danger.

I would advise you to start out with this round-ball load, if you are only going to do short-range shooting.

At the present time the N.R.A. does not sell primed pistol cases, although they will probably be added to the list later. Anyway, I think the Auto-Rim case is the best one to use, and would advise you to get a few full loads in Auto-Rim, and after using them you will have the cases which will last indefinitely when loaded with the gallery load just mentioned.

You are right that the .45 caliber primers sold by the Director of Civilian Marksmanship are not the proper size for commercial cases. The commercial cases have a primer pocket with a diameter of .211, whereas the Frankford cases have a pocket with a diameter of .2035.

\* \* \*

### "OLD SMOKY" PACKS A WALLOP

MANY owners of Model 1917 Colt's and S. & W.'s are having them rechambered to handle the .45 Colt cartridge. Why? Isn't the .45 auto cartridge the best revolver and pistol cartridge on the market?—E. J. H.

Answer (by Major Hatcher). The reason why users of the 1917 S. & W. and Colt have them rechambered for the .45 Colt cartridge is because this .45 cartridge is an old-time favorite and many people are very fond of it.

I do not believe that this rechambering has any particular advantages, unless you are going to use a black powder load.

Some people do not like to use the jacketed bullet and that may account for their having the gun rechambered, but the 1917 model will handle the .45 Auto-Rim cartridge, which is made in a lead bullet.

The following comparison will show that there is not much advantage to be gained.

| Cartridge          | Bullet Wt. | Velocity | Energy      |
|--------------------|------------|----------|-------------|
| .45 Auto           | 230 gr.    | 810 f.s. | 340 ft. lb. |
| .45 Colt—Smokeless | 250 gr.    | 770 f.s. | 330 ft. lb. |
| .45 Colt—Black     | 250 gr.    | 910 f.s. | 460 ft. lb. |

You will see from this table that the .45 Colt Smokeless is no more powerful, in fact not as powerful, as the .45 Auto-Rim; but the .45 Colt Black, as loaded by Remington, from whose ballistic tables the above figures are taken, is an old wallower and is loaded with higher velocity than other cartridge companies use and, therefore, if an extreme of power is wanted, this cartridge will give it. However, it has the disadvantage of black powder, always fouling up the barrel very badly and, therefore, I do not advise it if you can get along with the smokeless load, which is plenty powerful enough for all but extreme cases.

\* \* \*

### THE OLD-TIME COLT

REGARDING the .45 Colt single-action revolver, any information you can furnish regarding the following will be greatly appreciated:

1. What was the powder charge as used in the early models .45 Colt when first manufactured?

2. Were the first .45 Colt revolvers used in the Army chambered for the 28-grain cartridge, or did the Army use a 28-grain cartridge in a revolver chambered for the 40-grain cartridge?

3. Was there any special reason for the Army using the 28-grain cartridge, whereas the vast majority of cartridges sold for civilian use were loaded with the 40-grain charge?

4. Did the Army ever use the 40-grain cartridge in the .45 single action for general service?

5. When was the .45 single action super-

ceded by the .38 Colt double action, and what was the reason for doing so?

The situation regarding early .45 Colts and ammunition is very confusing, and thus far I have not found an Army .45 Colt that was chambered for the 28-grain cartridge which Frankford Arsenal manufactured until late in the 1890's.

Recently, I examined an Army .45 Colt manufactured in 1881 and it was chambered for the 40-grain cartridge, while the prevailing F. A. cartridge then in use seems to have been the 28-grain cartridge. On the other hand, several years ago I found a few of the old F. A. inside-primed, non-reloadable, copper-case cartridges loaded with 40 grains powder. These were probably an experimental lot, as the usual inside-primed cartridge was the 28-grain charge.—B.K.W.

Answer (by Major Hatcher). I am not thoroughly familiar with all the ins and outs of the history of the .45 Colt single action revolver, but will answer your questions to the best of my present knowledge, as follows:

1. The early model .45 Colt's were loaded with 40 grains of black powder.

2. The first breech-loading .45 caliber revolvers used in the Army were the .45 Smith & Wesson revolvers, and these had a 230-grain lead bullet and 30 grains of black powder.

Later on, when the Colt revolvers were adopted, the recoil of the heavy 40-grain charge was probably objected to because the users were familiar with the 30-grain charge. This very likely accounts for the reduction to 28 grains.

All the revolvers used by the Army were chambered for the regular 40-grain cartridge.

3. This is answered in No. 2.

4. As far as I know the Army never used 40-grain black powder cartridge for general service.

5. The .45 single action was superseded by the .38 Colt double action in 1902.

I do not know the reason, other than that of supposed improvement of double action and the greater ease of loading with the swing-out cylinders.

\* \* \*

### 9 MM. MAUSER NOT SO GOOD

WILL you kindly send me some information on the 9 mm. Mauser pistol, 6-inch barrel:

(1) Its accuracy.

a.—Its effective range.

(2) Its durability.

(3) Its Ballistics.

a.—Muzzle velocity.

b.—Wt. of bullet and grains of powder.

c.—Its shocking power.

(4) Is it sufficiently powerful and accurate to be carried in place of a .25-20 rifle for small game?—P. R. G.

Answer (by Major Hatcher). The 9 mm. Mauser has a much lower velocity count than the old well-known .30 caliber Mauser. Cartridges for this 9 mm. are not made in this country.

(1) It is accurate to 100 yards.

(2) These guns vary a good deal in durability. Many of them being rather poor, as they were made for war service.

(3) a.—About 1,000 f.s., but the ammunition is variable. b.—Bullet weight 124 grs., powder about 4.5 grs. c.—Its shocking power is equivalent to that of any other .38 caliber bullet, the 9 mm., of course, being .38 caliber, approximately.

(4) I should not consider this weapon a substitute for the .25-20 rifle. A .30 caliber Mauser would be more nearly suitable for that use.

## Campaign of the Civil War

(Continued from Page 10)

out, was undoubtedly due to the pernicious system prevailing in many portions of the Union, of allowing the men to elect their own officers and of appointing politicians to some of the higher ranks.

There is no reason to suppose that the soldiers of the North and South were, after equal training, materially different in ability. The successes of the South were undoubtedly due to their better organization, familiarity with the terrain over which they fought, and the fact that they held the so-called interior line. In this manner Jackson, with 16,000 men, provided employment for 50,000 Federals and escaped without the loss of a single wagon on one of his great raids.

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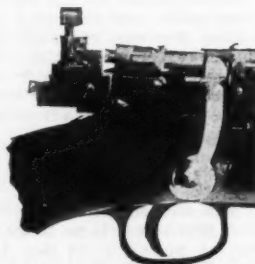
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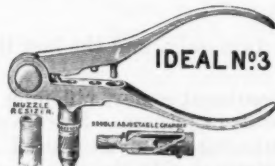
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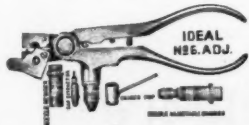
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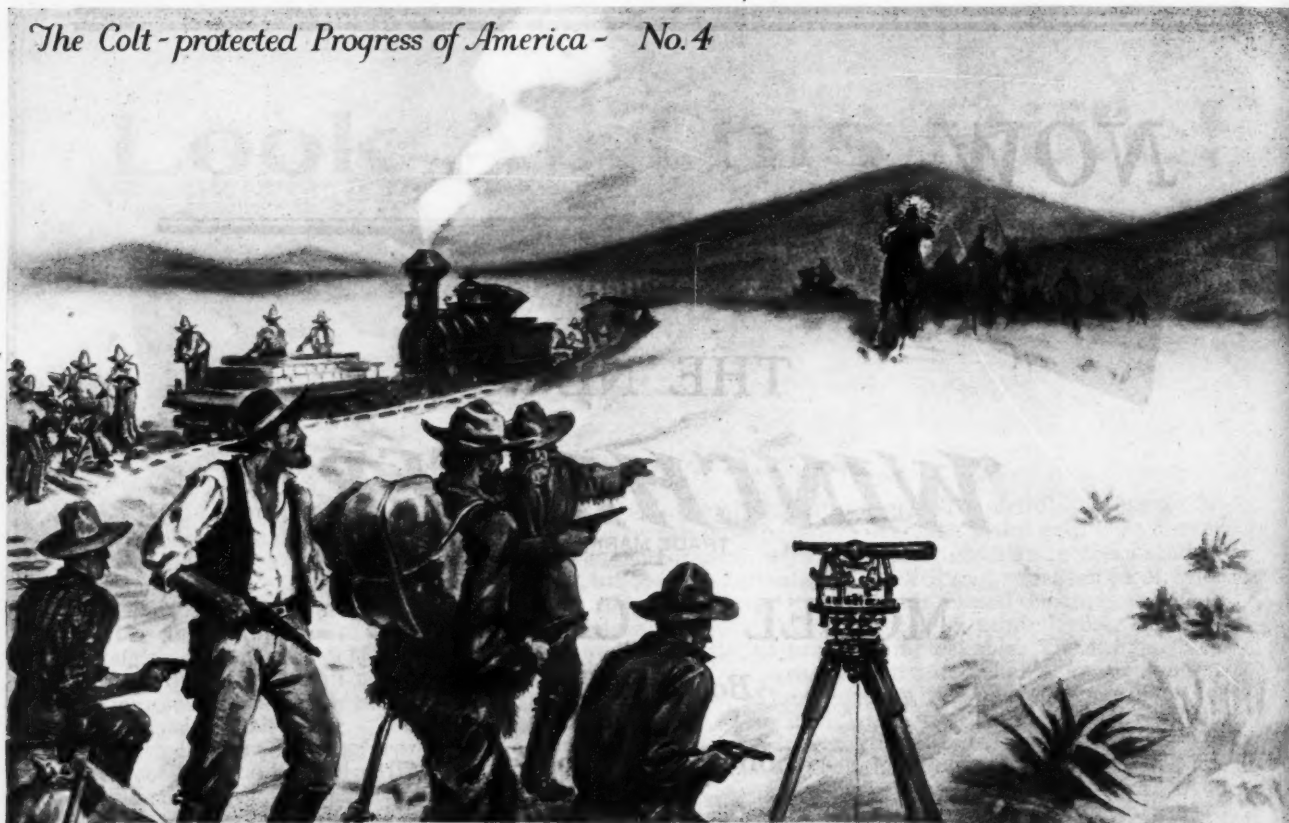
This carbine weighs about 7 $\frac{1}{4}$  pounds and is made in solid frame style.

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**FOR SALE—**Colt .22 Auto. Partridge Sights, or will trade for .45 Colt auto, in good condition, new model. R. McB. Morris, Mansfield, Ohio. 2-27

**WANTED—**Heavy barrel Springfield Match Rifle, with set triggers, in perfect condition, give full description. Dr. Carl W. Wahner, Physicians Bldg., Sacramento, California. 2-27

**TRADE GUNS FOR FOLLOWING—**22 Short ammunition, like D.C.M. sold cheap. 22 Colts Auto. Action, barrel no object. Remington 12 ga. Auto. Earl Coziah, Box 135, Cokeville, Wyoming. 2-27

**CLEAN UP SALE—**One new 95 Model Winchester Rifle .30-40, \$27.50. One new 94 Model Winchester Rifle .36-55, octagon barrel, \$18.50. One new 94 model Winchester rifle, .25-35 octagon barrel, \$21.50. One new 30 Newton, old model, extra peep sight on bolt, one of first made, never fired, \$35.00. All above rifles are perfect. 350 old sporting magazines, all kinds, five cents each net, \$12.50 for lot. 18 profile Canada geese decoys, gal. iron. 6 heavy spring leg. with wings, geese decoys. \$18.00 for lot. Charles Hoffmeister, Imperial, Nebraska. 2-27

**HANDLOADING AMMUNITION**, by J. R. Mattern. A text-book covering all phases of the loading and reloading of ammunition for rifles and revolvers. 380 pages. 117 original illustrations. Voluminous tables of ballistics and 50 pages of load tables for all modern cartridges. A technical discussion on each popular cartridge. Complete instructions for loading to duplicate factory loads, short range and small game loads, big game cartridges and loads to obtain extreme accuracy at all ranges. Everything is original, there is no reprinting of catalog dope. Intensely practical. No shooter should be without it, whether a handloader or not. Bound in buckram. Price, \$3.00 postpaid. Small Arms Technical Publishing Company, Box 18, Marshallton, Delaware. 2-27

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**WANTED—**Maynard, Ballard, Spencer, Starr, Car-bines, Stevens Tipup Rifle. Robert Wheatcraft, R. 3, Coshocton, Ohio. 2-27

**SELL OR TRADE—**Winchester Carbine, .30-30, like new, Lyman peep, \$20.00. **WANT—**Shotgun. Revolver, Typewriter. Bob Ferguson, Roaring Springs, Texas. 2-27

**TRADE—**32 Revolver for .22 Revolver, or other guns. Julius P. Anderson, Sartell, Minnesota. 2-27

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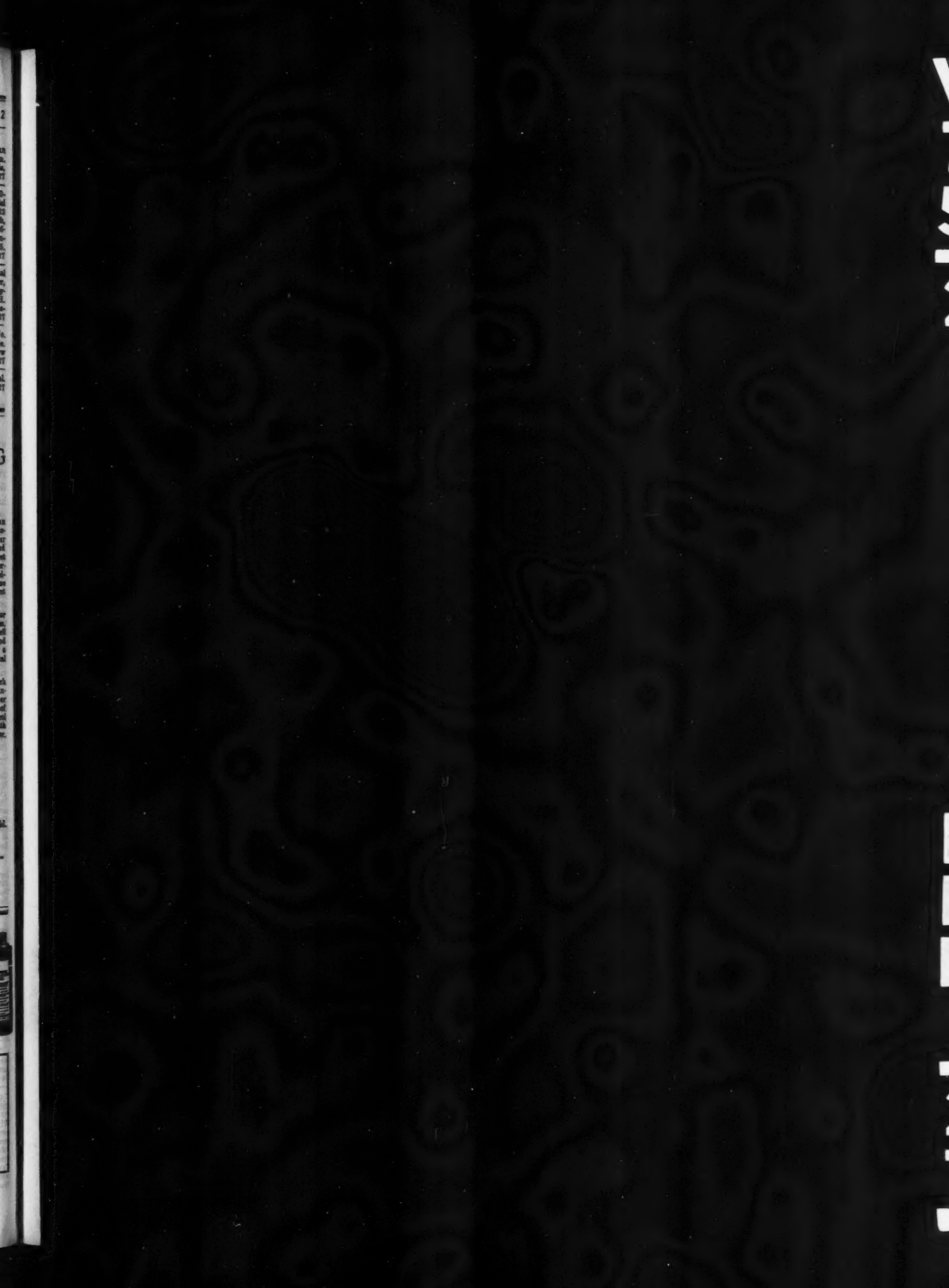
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N.R.A. SERVICE COMPANY  
1108 Woodward Building







# A Notable Record of Important Wins

Here are the real bullseye busters for you. Here are the small-bore cartridges with the long record of important wins to their credit—U.S. .22 N.R.A.'s.

When the last shot in any big match is fired and the final scores are tallied, invariably you find shooters of U.S. N.R.A.'s heading the prize-winning procession. It's a habit!



Take the last Olympic and International Small-Bore Matches in France: When the results of that memorable tournament had been compiled, it was found that U.S. .22 N.R.A.'s had made a clean sweep of the boards, winning three world championship events and establishing a world's record.



Year after year at the Metropolitan Matches, annually held in New York, shooters of N.R.A.'s have put themselves above other competitors. In 1925, for example, they won four of the first five places in the main event, while in 1926 they annexed the highest three places in both the championship and preliminary matches.



At the last national small-bore tournament held at Camp Perry, Ohio, U.S. N.R.A.'s again proved themselves the choice of champions, these cartridges being used by forty-nine per cent of the prize winning rifle marksmen. Moreover, seventy-five per cent of the prize winners in the pistol and revolver matches, where commercial ammunition was used, shot cartridges of U.S. make.

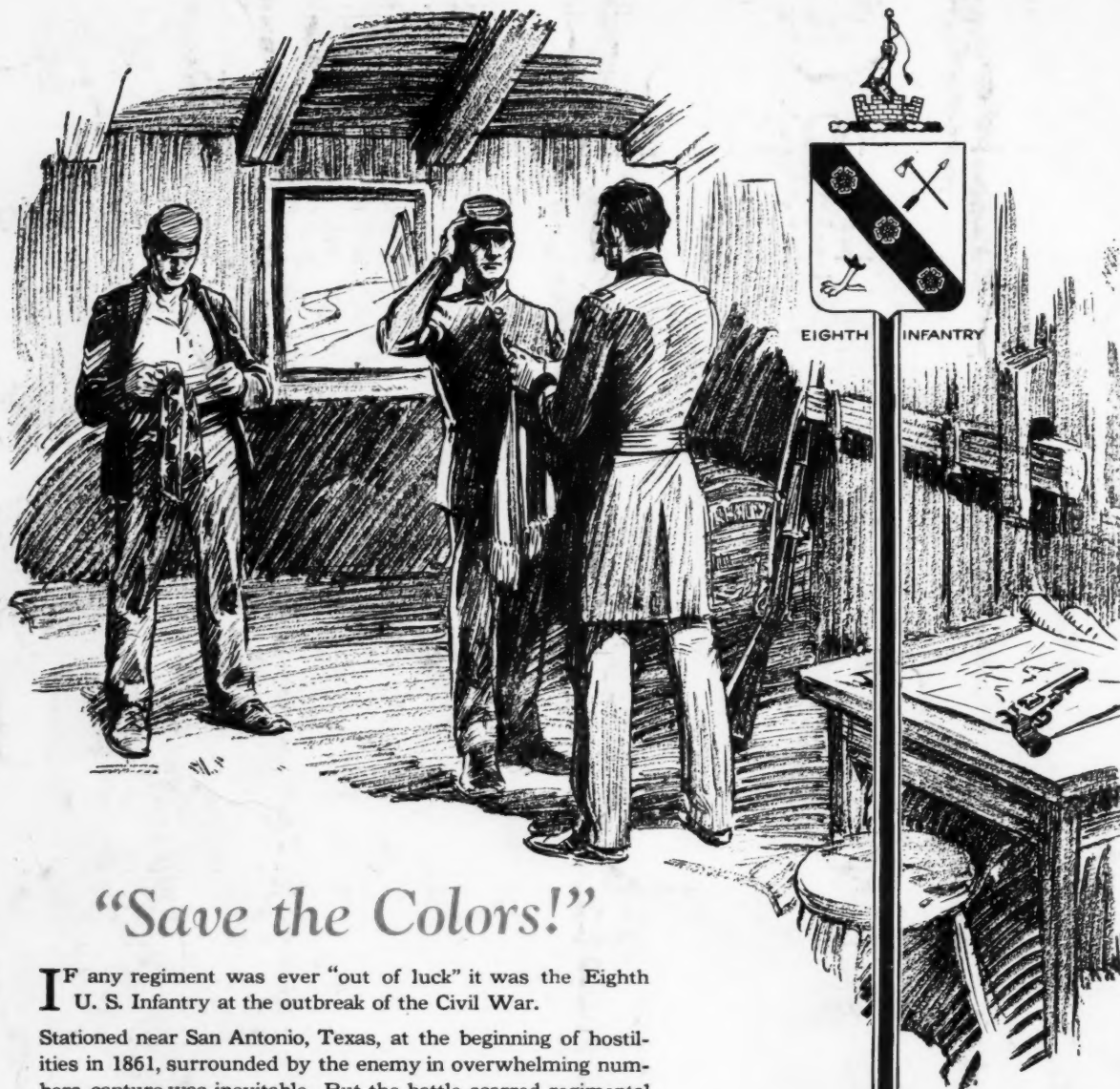
The Spencer match, classic of the annual Eastern Small-Bore Tournament, held at Sea Girt, N. J., has been won during each of the past three years by marksmen who slipped N.R.A.'s into their rifles. Furthermore, these cartridges were used by the shooters who carried away six of the events at the 1926 Interstate Rifle and Pistol Matches, also shot at Sea Girt.



There's a partial list from the long, long record of wins registered with U.S. .22 N.R.A. long-rifle cartridges. It proves that these cartridges are, beyond question, the choice of champions. To prove to yourself *why* they are the choice of champions, it is necessary to do but one thing—shoot them yourself. The answer is in the bullseye



**.22 N.R.A.**  
*Long Rifle Cartridges*



## "Save the Colors!"

**I**F any regiment was ever "out of luck" it was the Eighth U. S. Infantry at the outbreak of the Civil War.

Stationed near San Antonio, Texas, at the beginning of hostilities in 1861, surrounded by the enemy in overwhelming numbers, capture was inevitable. But the battle-scarred regimental colors, carried by the Eighth through the Mexican War! They must be saved at all costs!

The Sergeant-major Joseph K. Wilson and a heroic Corporal, John C. Hesse, volunteered to carry them to safety. Wrapping them about their bodies beneath their blouses they stole through the enemy's lines. Mile after mile through a country bristling with hostile troops and inhospitable natives, they traveled until they had quitted the state.

Then a hazardous trip northward to present the sacred emblems to the President at Washington. Again the motto of the Eighth—"Patriae Fidelitas"—was upheld.

E. I. DU PONT DE NEMOURS & CO., Inc.

Military Sales Division

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